

# INTRODUCTION.

## I. Chronological Sketch.\*

1632. John Locke, the son of a country-attorney, was born August 29, in a village in Somersetshire.

1646. Admitted at Westminster school, of which the Headmaster was the celebrated disciplinarian Dr. Busby. Locke's life at school (six years) led him to form an unfavourable opinion of education in English public schools.

1652. Elected to a Westminster studentship and admitted to Christ Church College, Oxford. Finds the enforced religious observances tedious, and the scholastic disputations utterly unprofitable.†

1654. Contributes to an Oxford collection of verses (English and Latin) congratulating Cromwell on the advantageous treaty concluded with the Dutch.

1656. Admitted to the B. A. degree.

1658. Takes the degree of M. A. Continues to reside at Oxford.

1660. Appointed Lecturer in Greek at Christ Church College.

1661. Death of his father, and his only brother. Writes some Essays, never published—one of them being on religious toleration.

1662. Appointed Lecturer on Rhetoric in his college.

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\* The student may consult Prof. Fowler's *Life of Locke* in the *English men of Letters* series, and the account of Locke's philosophical opinions in Ueberweg's *History of Philosophy*, Vol. II. pp. 82-88.

† He likens the process to *hog-shearing*, and says it can train one up to be "an insignificant wrangler, opinater in discourse, and priding himself in contradicting others; or questioning everything and thinking there is no such thing as truth to be sought, but only victory in disputing."—*Thoughts concerning Education* (quoted by Prof. F.) It has been generally thought that such education as Locke received at Oxford was utterly thrown away on one destined to be an original thinker. But Prof. Fowler acutely remarks, "the scholastic training of Oxford had a large share in forming, *by reaction*, many of his most characteristic opinions. . . . We can hardly doubt that if Locke had not been brought up in a University where logic and philosophy did not form part of the course, his greatest work would never have been written."—*Life of Locke*. 3

1663. Appointed censor of Moral Philosophy,—a post which he held only for a short time, working at the same time as a tutor.

1665. Is attached to the English embassy to the Elector Brandenburg (afterwards styled king of Prussia). Leaves England and travels on the Continent.

1666. Returns to Oxford, gives up finally all thoughts of entering the Church, intending to study medicine instead, is introduced to Lord Ashley (afterwards the Earl of Shaftesbury) great Whig leader, with whom an intimate, life-long friendship soon springs up.

1667. Resides in London with Shaftesbury, whom he cures of a dangerous tumour, and acts as tutor to Shaftesbury's only child, Anthony Ashley.

1668. Elected a Fellow of the Royal Society.

1670. Tries, with no success, to be admitted to the degree of M. D. in Oxford. (Afterwards he took the lower degree of M. P., but never regularly practised as a physician.) Entertains, for the first time, the idea of writing his great Essay on the Human Understanding (not published till 1690.) Suffers from a disorder of the lungs for about two years.

1672. Takes a short journey to France. Appointed, on his return, Secretary of Presentations (to church appointments), salary £300 a year, by Shaftesbury, now Lord Chancellor.

1673. Loses his appointment on Shaftesbury's dismissal, but soon afterwards gets the Secretaryship of the Council of Trade and Colonies (£500 a year, but the salary was never paid.)

1675. Gets a "Faculty Studentship" at Christ Church and also an annuity of £100 from Shaftesbury, and gives himself up to his favourite studies. Is obliged by ill-health to remove to France, and resides at Montpellier for more than a year.

1677. Comes to Paris; employed there as tutor to the son of Sir John Banks.

1678. Travels through France.

1679. Returns to England in April, again resides at London with Shaftesbury, now Lord President of the Council, the super

receives the education of his grandson (afterwards the third Earl of Shaftesbury and author of the famous *Characteristics*.)

1681-2. Shaftesbury's fall, trial, acquittal, and escape to Holland (where he died in Jan. 1683.) Locke lives a retired and somewhat mysterious life at Oxford. Suspected of being concerned in the Rye-house Plot.

I. 1683. Leaves Oxford for the last time, and soon after goes to Holland (where he resides till the Revolution.)

1684. Makes a tour through Holland, with great benefit to his health. Expelled from Christ Church and deprived of his Studentship,—the minister Lord Sunderland having signified to the Dean of the College the king's displeasure against Locke for "factious and disloyal behaviour." (This and the few following years were mainly devoted to his great work.)

1685. Obligated to remain in hiding for several months, his surrender being demanded of the Dutch States-General by King James after the revolt of Monmouth. Writes the *Letters on Toleration* (published in 1690.)

1687. Publication of a summary of his *Essay* in French by a Cleric.

1689. Returns to England in February, (soon after William III. was invited to come over) in the suite of Princess (afterwards queen) Mary. The new king wishes to send him to Berlin as ambassador to the Elector of Brandenburg, but Locke declines the high office, chiefly on account of ill-health. On his declining some other foreign appointments, he is appointed a Commissioner of Appeals, and holds the office till 1696, *Letters on Toleration* published (in Latin) in Holland.

1690. Publication of the *Essay on the Human Understanding*, and two *Treatises on Government*, *Second Letter on Toleration* (in reply to the attack of an opponent)—these latter being published under the pseudonym *Philanthropus*. Finding the air of London injurious, he begins to reside frequently at Oates, a manor-house in Essex belonging to his friends Sir Francis and Lady Masham—the latter (the daughter of the philosopher Cudworth) treating him as

a father, and taking the most tender care of him for many years.

1691. Writes a tract on Finance, opposing the schemes of lowering the minimum rate of interest to creditors of the Government from Six to Four per cent., and of artificially raising the value of silver coins.

1692. Publication of his third *Letter on Toleration*..

1693. Publishes his famous work, *Some Thoughts concerning Education*. Prepares the second Edition of his great *Essay*.

1694. Publishes an Examination of Malebranche's theory of seeing all things in God, and one or two controversial tracts.

1695. *An Essay on the Reasonableness of Christianity*, (followed by some replies to attacks made on the work), two pamphlets against the scheme of raising the value of money\* (as a remedy against the great inconveniences resulting from the circulation of clipped coins), a paper containing practical reasons in favour of the freedom of the Press, and against the renewal of the Licensing Act. (This paper was submitted by the House of Commons to the Lords, who were at last prevailed upon to cease pressing for the renewal of the licensing act,—with the result that the English Press at last become free.)

1696. Appointed one of the Commissioners of the Board of Trade and Colonies (revived this year) on a salary of £1000 a year. Increasing ill-health, forcing him to live in winter and spring at Oates every year.

1697.. Controversy with Dr. Stillingfleet, Bishop of Worcester, who had attacked some of Locke's doctrines. (This famous controversy, which ended in the victory of Locke and won him great reputation, was carried on for two or three years, the last letter appearing in 1699.) Prepares the fourth edition of the *Essay* for the press. Writes the CONDUCT OF THE UNDERSTANDING, (pu

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\* Locke's views were accepted by the Chancellor of the Exchequer, Charles Montague (afterwards Lord Halifax,) and the old standard value of the silver pieces was retained in the new coins issued, while the old clipped coins were to cease to circulate after a certain date. The Bill embodying this great reform was passed in January 1696.



lished after his death)—intended at first to form a chapter of the *Essay*.

1700. Resigns the Commissionership of the Board of Trade on account of increasing ill-health, inspite of the king's wish to retain his services. This ends his public career.

1703. Attempt on the part of the university authorities at Oxford to stop the study of Locke's *Essay* amongst students, as dangerous to religion.

1704. Begins a fourth *Letter on Toleration* (never completed.) Failing health. Death at Oates, October 28th, in his Seventy-third year.

**II. Locke as a Man.** Love of truth and justice seems to have been the strongest passion in Locke's nature. Yet his was by no means the life of a speculative or experimental philosopher. He took intense interest in the affairs of his country, his patron, his friends and relatives. He exercised the rare powers of his intellection most of the great problems of life, society, politics, and knowledge that pressed for solution in his age. At the same time he exerted himself to promote the well-being of those he associated with, in the minutest details of their daily life; and threw himself with energy into the great struggle for civil and religious liberty in which Englishmen were then engaged. His piety, deep and fervent as it was, was as far removed as it could be from any narrow sectarianism or bigotry; no man perhaps combined more successfully in himself a spirit of toleration with zeal for what he regarded as truth, an open mind with earnest convictions. The amiability of his disposition and the warmth of his affections were shown in the many intimate friendships that he formed, both in England and Holland. Though he never married, or had children of his own, the gentleness and kindness of his nature secured him the deep attachment of the children of his friends. In his letters to the Dutch scholar Furly, he never fails to refer to a little son of the latter, as his "little friend"; a little girl, the daughter of his friend Clarke, he playfully called his "little wife". Another secret of the strong affection that he inspired was his unfailing cheerfulness, even in illness,

which made it a pleasure to take such tender care of him as Lady Masham and her daughter did. He was not of a moody disposition, but was exceedingly sociable, and possessed of a strong sense of humour. He was never querulous or exacting, as one who so long suffered from ill-health might well be expected to become. He was moreover strictly temperate, at a time when hard drinking was not reckoned a vice amongst the highest classes of society; and as a rule drank only water. He thought it was this habit which enabled him in spite of his ill-health, to exceed three score years and ten (the ordinary term of human life) and to preserve his eye sight unimpaired to the very last.

**III. Locke as a Thinker.** The characteristics of Locke as a thinker are what one would expect from the man—a large measure of good sense, a masculine mind,—“the very type of an English mind,” as Lewes says, “when at its best—heartly, honest in his love of truth,” with a plain directness of manner. No philosopher is more completely free from empty rhetoric, from an assumption of superior wisdom, from prejudices that degrade the mind, or from vague maxims, which seem deep because they are obscure or mystical. To these he united a patient sagacity and an openness of mind which enabled him to change his opinions as soon as he perceived their error.

The charges which it has been the fashion to make against him as a philosopher are superficiality, materialistic tendencies, and want of originality. As to his supposed superficiality, we have to bear in mind how often mere obscurity gives to doctrines as false air of profundity. Locke had a strong repugnance to this artifice, and is never tired of warning his readers against a mistake they are so liable to make. It is the very clearness of Locke that has made people fancy that he is not deep,—a charge to which the best reply is that of Lewes—“Read him.” The reader cannot help admiring “the patient analysis by which he has laid open such vast tracts of thought.”

This analysis is also a clear proof of his originality. It is easy to discover passages in older authors notably Hobbes, which seem

to foreshadow Locke's theory of the origin of ideas, and other characteristic opinions of his. \*But to Locke belongs the credit of having built up a magnificent system on that theory, and of developing those views as a consistent and harmonious whole.

As to the materialistic and dangerous tendency of his writings, it is only by taking principles out of his book and pushing them to extremes, that they may be supposed to lead to dangerous consequences; but, as his editor, Mr. St. John remarks, in Locke himself we discover nothing, which is adverse to the best interests of society. He maintains no paradoxes for the mere purposes of exhibiting his metaphysical acuteness and logical power.

H. Rogers, a great admirer of Locke,—says on this subject: "But not one of the traits of Locke—neither his logical acuteness, nor his thirst for truth, nor the sagacity with which he prosecuted his search for truth—is more marked than *his habitual recognition of the narrow limits of the human faculties*, and his conviction that the chief function of a philosopher is to ascertain within what sphere men may legitimately philosophise. Acknowledging without shame this fact of the true position of man, he never hesitates to confess his ignorance where he is ignorant, nor even in many cases his despair of ever attaining knowledge. It is refreshing to see with how firm a hand Locke at once applies the knife to those huge wens of *ontology*, as it was called, which had long impoverish-ed all healthy intellectual philosophy."†

\* The following remarks of Hallam may fitly be quoted in this connection: "No quality more remarkably distinguishes Locke than *his love of truth*. He is of no sect or party, has no oblique design, such as we frequently perceive, of sustaining more tenet which he suppresses, no submissiveness to the opinions of others, nor (what very few lay aside) to his own. Without having adopted certain dominant ideas, like Descartes or Malebranche, he follows with inflexible impartiality and unwearied patience the long process of analysis to which he has subjected the human mind. No great writer has been more *exempt from vanity*; but he is sometimes a little sharp and contemptuous of his predecessors. The *originality* of Locke is real and unaffected; not that he has derived nothing from others....but, as Dugald Stewart says, it is probable that when he began to write he found the result of his youthful reading completely identified with the fruits of his subsequent reflections."—Hallam's *Literature of Europe*, Vol. III., Part IV. ch. 3d.

† *John Locke: His character and Philosophy*—Roger's *Essays*, Vol. II. pp. 5-6.

It is chiefly because he rejected such inquiries, that Locke has been often charged with "materialism;" but as he says "Where we know our own strength, we shall the better know what to undertake with hopes of success...It is of great use to the sailor to know the length of his line, though he cannot with it fathom all the depths of his ocean. It will be no excuse to an idle servant who would not attend his business by candle light, to plead that he had not broad sunshine. The candle that is set up within us shines bright enough for all our purposes."

The above words exhibit Locke's **Method**, which was essentially unmetaphysical, and purely psychological or *introspective*. He is the founder of modern psychology. His method has been called **Empirical**, because it consisted in watching patiently the operations of the mind in acquiring experience. This brings us to—

**IV. Locke's theory of Ideas\***; the **Essay on the Human Understanding**. In the first Book of his great Essay, Locke examines the doctrine of Innate ideas, which had been almost unquestioningly received before his time. The doctrine was that besides the notions we derive through experience, there are others—which are the source of all certainty—which are received into the soul at birth, and which it brings with it into the world. In proof of the existence of such ideas, they appeal to the universal existence of them in every human being without exception. Locke contends however, that (i) even granting this to be the fact, it would prove nothing, if we can explain it in a different manner, and (ii) that it is not the fact. These principles thought to be admitted by all, are either (a) speculative (i.e. theoretical) or (b) practical (i. e. serving to regulate conduct.) As to *speculative principles*, supposed innate, he shows that even the propositions which have the greatest claim to universal validity, (such as "Whatever is, is" or the so-called Laws of Identity, Excluded Middle &c.) are not universally assented to. We should expect them to be

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\* Locke's definition of *Idea* is contained in the following sentence : It being that term which I think serves best to stand for *whatsoever is the object of the understanding when a man thinks*, I have used it to express whatever is meant by *phantasm, notion, species, or whatever it is which the mind can be employed in thinking.*" *Hum. Und.* B. I. Ch. I.

known to children, idiots and savages, (as is not the fact), for "to be in the mind" is the same thing as "to be known". Locke then deals with the plea that "men know these innate principles as soon as they come to the use of Reason." (1) If Reason discovered them, that would not prove them innate. (2) It is wrong to say that Reason discovers them—we may as well say that the use of Reason is necessary to make our eyes see. (3) The fact is that the said axioms come much later into consciousness than many particulars of knowledge. "The child knows the difference between the ideas of sweet and bitter (*i. e.* that sweet is not bitter), before it can speak," and it can not be maintained that such particular propositions as "sweet is not bitter" come later than the Law of *Contradiction*. (4) If such ready assent be a mark of innate, then "one and two are equal to three" and a thousand propositions of the same kind must be innate also,—especially since these less general propositions can be proved to be known before the so-called universal maxims. (5) These maxims not being sometimes known till proposed, proves them not innate. For to say that they were implicitly known before being proposed, can only signify that the mind is capable of understanding them, and rests on a false supposition that there has been no teaching (through experience) before they are proposed. (6) Lastly, Locke shows that these abstract ideas supposed innate, appear least where one would expect them to be clearest. "They are the language and business of schools and academies of learned nations, where disputes are frequent, being suited to artificial arguments, but not much conducing to the discovery of truth or advancement of knowledge." (*Hum. Und. B. I. Ch. II.*)

As to *practical principles*, it is found by an examination of the moral rules current among various nations, and at different periods of history, that hardly any of them are recognised and acted upon by all. Even faith and justice are not owned as principles by all men, and the actions of men convince us that the rule of virtue is not their internal principle, being generally approved, not because innate, but because useful. Thus moral rules require proof, and cannot be innate. This disposes of the argument that men admit the validity of those principles in their thoughts, though they deny

them in practice. Besides, Locke complains that those who maintain the innate character of moral rules, do not clearly tell us what these rules are. As soon as they are distinctly brought forward, it is easy to show that they are not believed to be binding by all. Nor is it of any avail to say that such principles may be corrupted by education custom, general opinion &c; for "this quite takes away the argument of universal consent, or substitutes for it the following: The principles which all men allow for true, are innate; those that men of right reason admit, are the principles allowed by all mankind; we and those of our party or sect, are men of reason; therefore we agreeing, our principles are innate." (*Hum. Und.*, B.I. Ch. III.) This says Locke, is a fallacy made use of every day, though transparent when stated thus clearly. (This is dwelt on in the *Conduct of the Und.* Secs. 6, 10, and other parts of the book.)

Having thus demolished the theory of Innate ideas,\* Locke proceeds in the second book of the *Essay*, to inquire how the mind acquires its ideas. He traces them all to experience, the mind of an infant being compared to a *tabula rasa*, or blank sheet of paper, on which nothing has been written. This experience, on which all knowledge depends, is twofold: (1) the perception of external objects through the special senses, which is called *Sensation*; (2) the perception of the internal workings of the mind, which is called *internal sense*, or *Reflection*. These two faculties furnish the understanding with all its ideas; they are the windows, so to speak, by which all knowledge enters the *camera obscura* (the dark chamber) of the mind;—the external objects supply the ideas of sensible qualities, the mind supplies the understanding with ideas of its own operations. Thus Locke is not a pure sensationalist.)

The rest of the second Book is devoted to the work of deriving and explaining the ideas generally, by a reference to the above two sources. The ideas are divided into *simple* and *complex*. Simple ideas are again subdivided into (1) those that reach the mind

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\*It should be added, that, of late years, the principle of Heredity has been used with great success to reconcile the theory of Innate ideas with the views of the Empirical school. The extension of the experience of the individual to that of the race,—what was called innate being viewed as inherited experience,—throws a new light on the problem of the origin of knowledge. See Spencer's *Psychology*, Part IV.

though a *single sense*,—as ideas of colour (through sight), of sound, of impenetrability, solidity &c. (through touch); and (2) those that are contributed by *several senses*,—as the ideas of extension and motion, which are due to the senses of touch\* and sight combined; (3) those that are derived from *reflection*—as the ideas of thought and will; (4) lastly those derived from *Sensation and Reflection combined*, as the ideas of unity, succession, power &c. [It may be doubted whether the second and fourth of the above divisions ought properly to be classed as simple ideas.] Complex ideas are formed by various combinations of the simple ideas, just as in language the combinations of elementary consonants or vowels, form syllables or words. These complex ideas are classified into (1) Modes (2) Substances, (3) Relations. The modes are defined as complex ideas “which, however compounded, contain not in them the supposition of subsisting by themselves,” but are considered as dependent on substances: such as the ideas signified by the words *triangle*, *gratitude*, *murder* &c. The Modes are again subdivided into *Simple* and *Mixed*—the former consisting of simple ideas of the *same kind* combined together—and including the ideas of Space, Duration, Number, modes of Motion &c. These undergo further sub-division, into which it is needless to enter. Among *Mixed modes* (which consist of several combinations of ideas of *different kinds*) may be mentioned the voluntary combinations of ideas as virtues, vices and various ideas acquired by invention, observation, and the use of words. Generally it is the word that “ties the parts of mixed modes together”—as the ideas combined in *paricide*. In treating of the complex ideas of **Substances**, Locke analyses the notion of *Substance* thus: We learn from sensation as well as reflection that a certain number of simple ideas frequently present themselves together; and being unable to think of these ideas as self-supported, we habituate ourselves to think of a substratum as forming their basis, and give to this creation of our brain the name of *substance*. Substance is thus the unknown something to which

\* Modern psychologists, notably\* Prof. Bain, have shown that it is not on simple touch, but on the consciousness of our muscular energy, (including the movements of the muscles of the eye) that our ideas of extension &c. are based.

the various qualities (known through the senses or by reflection) are supposed to inhere. We know, however, only the qualities or attributes.† A third class of complex ideas, viz. **relations**, are those that are formed when the mind unites two things so, that on observation of the one it immediately reverts to the other. (This is what, in later English psychology, has assumed such importance, under the name of *Association of Ideas*.) Among the Relations that Locke considers are those of Identity and Diversity, of Cause and Effect. As to this latter Relation, Locke holds that it arises on our perceiving how something (whether a substance or a quality) begins to exist in consequence of the action of another something. [Thus the second Book of Locke's Essay is devoted to the *positive* side of his philosophy—the building up from experience of a complete theory of Ideas, as the first Book embodies the *negative* side, that of overthrowing the theory of innate ideas.]

In the third Book, is to be found a masterly and original investigation of the nature and properties of Language, and of its relation to the ideas which it conveys, together with an exposure of the imperfections and abuses of words and suggestions as to the means of remedying them. [See notes to Sec. 29.]

Book IV. Is devoted to a discussion of *knowledge in general*, its degrees, its extent, the reality of various kinds of knowledge (Mathematical, moral, of substances &c.) of truth, of universal propositions (which he says, can be certain, as regards substances, only when the coexistence of the ideas composing them can be known). He then considers the important question of the *knowledge of our own existence* (which he says is intuitive) and of the existence of God—which he bases on the knowledge of our own existence, and on the intuitive certainty that Nothing can not produce a Being—this latter producing a conviction that there must be something Eternal, most powerful and knowing. Proceeding to our knowledge of the existence of other things, he says it is to be had only by sensation, (including the united testimony of

† This view of substance contains an element of *idealism*, and even of *scepticism* which were afterwards developed by Berkeley and Hume respectively.



more senses than one) and though not so certain as demonstration may yet be called knowledge, being a degree of certainty as great as our condition needs. The remainder of the Book is devoted to the improvement of knowledge (containing sound directions about the danger of building on precarious principles &c.) and various important questions regarding judgment, probability, reason,\* faith, assent, enthusiasm, and error. It concludes with a scheme of the division of the Sciences.

**V. Locke's Theory of the Will.**—This theory is propounded in Ch. XXI of Book II of the *Essay*, and seems to deserve a separate mention, for it evoked considerable opposition and led people to regard Locke's philosophy as dangerous. He denies that liberty can be predicated of the Will, and maintains that the error arose from the practice of speaking of and representing the faculties as so many distinct agents. The proper question is, whether a man is *free in respect of Willing*; and even this question he answers in the negative, observing that "A man in respect of willing or the act of volition, when any action in his power is once proposed to his thoughts, as presently to be done, *cannot be free*." \* \* For it is unavoidably necessary to prefer the doing or forbearing of an action which is once so proposed to his thoughts; a man must will the one or the other of them." [This seems to evade the real point at issue.] But he admits that in one sense man is a free agent *viz.*—in his *being able to act or not to act, according as he chooses or wills*. This looks like an admission of what is really meant by the Libertarians; but the point is a doubtful one, as Locke maintains at the same time that true liberty consists in being "*determined in willing* by his own thought and judgment (as to) what is best for him to do." He tries to show that the Will is determined by something without it, *viz.* either the motive for continuing in the same state or action, or the motive to change it; the former is simply the present satisfaction in that state, and the latter is always some uneasiness.

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\* In treating of the subject of *reason*, Locke speaks contemptuously of the Syllogism, as both useless, and likely to be used in a misleading way; and makes the famous remark—*God has not been so sparing to make them barely two-legged creatures, and left it to Aristotle to make them rational.*

Desire (which must not be confounded with Will) is uneasiness, and it is the uneasiness of desire that determines the Will, not the greatest positive good. He explains why the greatest good is not always desired, and how it happens, therefore that this good does not move the Will. He then proceeds to point out that due consideration raises desire, and that this consideration is only possible if we have the intellectual power of suspending the prosecution of any desire by withdrawing our attention from it. Thus it is that the understanding acts upon the Will; and Locke argues that we are free only in so far as we have the intellectual power of allowing our judgment to pursue true happiness, by withdrawing our attention from improper desires and lower forms of good. He holds that it is no restraint to true liberty to be determined by our own judgment—the freest agents being so determined; on the contrary the government of our passions by our reason is the true improvement of liberty. He then analyses the reason why men come to choose ill, and traces it to wrong judgment due to various causes. Cousin, Dugald Stewart and some other thinkers contend that Locke's views on this subject tend directly to Fatalism. But it is easy to defend them from that charge. For while it may be said that he evades the difficulties which make the question of the Freedom of the Will so perplexing, he evidently recognises the *moral responsibility* of human beings. We can, he says, "in many cases, change the agreeableness or disagreeableness in things—a due consideration will do it in some cases, and practice, application and custom (*i. e.* habit) in most." And in maintaining that we can by such means alter our tastes, learn to govern our passions, and in short improve our character, Locke seems to anticipate the views of J. S. Mill, who lays it down as "a vital truth in moral psychology that we can improve our character if we will"—not indeed "by a mere act of volition," but by using "the means which nature gives to ourselves, as she gave to our parents and teachers, of influencing our character by appropriate circumstances." (*Mill's Examination of Sir W. Hamilton's Philosophy*, Ch. XXVI.)

**VI. Locke's views on Religion and morals.**—Some of Locke's

theological opinions—those concerning the knowledge of God's existence—have already been referred to in speaking of the contents of the Fourth Book of the *Essay on the Human Understanding*. Of the other works in which Locke deals with the subject may be mentioned the *Reasonableness of Christianity* and the *Letters on Toleration*. In the former he defends the fundamental truths of Christianity and dwells on the influence of that religion on the progress and civilization of the human race. His avowed object was to see what could reasonably be drawn from the Scriptures. He only partially assents to the doctrine of original sin, through Adam's transgression ; for he refuse to believe that all Adam's descendants (with the exception of the few elect) are doomed to eternal hell-fire and holds they were only deprived of immortality, which Adam had at first been gifted with. And Jesus Christ, he says, has restored this gift to men, on condition of their repenting of their sins and of faith in God and Christ's Messiahship—the proof of which is to be found in the miracles he worked. But he also thinks this faith must bear fruit in life, in the practical recognition of Christ's rules of conduct from which all moral duties may be clearly understood. These doctrines gave rise to a fierce controversy, for they appeared too rationalistic to Locke's contemporaries.

The leading doctrine in the *Letters on Toleration* is, that it is no part of a King or Civil Magistrate's duty to regulate worship or restrain the promulgation of religious opinions—far less to try to force the conscience in matters of belief. It is only in the following cases that the Government is justified in suppressing opinions : (1) when the views are atheistical ; (2) when they are plainly subversive of society, and of morals ; (3) when opinions are preached justifying (as Roman Catholic or Jesuit teachers of those days often did) the deposition of a heretical prince, or a revolt upsetting the Government, &c., (4) when the followers of any set of opinions do, in the very act of adopting them, deliver themselves up to the service of a foreign prince.

In *Morals*, Locke maintained a sort of utilitarianism,—as he believed Virtue and the Happiness of the people to be inseparably connected together and rejected the theory of Innate moral ideas ;

but at the same time he looked upon Morality as entirely based on Divine Will, and the Rule prescribed by God as the true and only measure of virtue. As to the *sanction* of morality, or what restrains people from transgressing the moral Law, he speaks of no other than the punishment of sinners by God,—the fear of Hell-fire. See above, pp. ix and xiii.

**VII. Locke's Works on Government, Finance &c.**—The speculations of Locke on Government have exercised great influence on later political thinkers and on the growth of liberal sentiments of freedom both in England and on the Continent; though indeed some of his theories—*e. g.* that of an original compact,—have become obsolete. They opened, says Hallam, “a new era of political opinion in Europe.” He accounts for this by reference to the success of the English Revolution, the necessity which the powers allied against France found of maintaining the title of William, III. the peculiar interest of Holland in the new scheme of Government in England;—all these gave weight and authority to Locke's principles, which but for these circumstances might still have been thought seditious.

These views are embodied in the two *Treatises on Civil Government*—especially the second, for the first is devoted to a diffuse though triumphant refutation of Robert Filmer's *Patriarchia* (see notes to sec. 44, *Conduct of the Und.*) Locke denied that there is any natural right of the kind claimed by Filmer for absolute monarchy as derived from a lineal ancestor and transmitted in course of primogeniture. In the second *Treatise*, Locke lays down the principles on which society is founded. (a) A state of nature, he begins by saying, is a state of perfect freedom and equality; though indeed it is limited by the law of nature which is binding on all, and the execution of which is put into every one's hands, for the reparation of his own wrongs, as well as those of others. (b) Till men enter voluntarily into some society, they are all in a state of nature. Thus kings are still in a state of nature with respect to each other, but not in relation to their subjects. (c) He then distinguishes between *natural* and *civil liberty*,—the former being freedom from any

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superior power except the law of nature, while the latter means freedom from the dominion of any authority except that which a legislature, established by the consent of the commonwealth, must exercise. *No man can by his own consent enslave himself or give power to another to take away his life.* (d) He then clearly deduces the natural right of property from labour in gathering the fruits of the earth or catching wild animals, as well as in the cultivation of land. (e) He then returns to the train of reasoning in the first treatise against the regal authority of fathers—What they possess being traced simply to the care they take of the child during infancy and minority, after which the power terminates, though he may still be entitled to reverence, support, and compliance. He concedes this much to Filmer's theory that "the natural fathers of families, by an insensible change, became the political monarchs of them too;" and when they chanced to live long, and to leave worthy heirs for several generations, they laid the foundations of hereditary kingdom; where they did not, the monarchy tended to become elective. (f) As man cannot live alone, there grew up the primary society of domestic life, and the natural power which the head of the family came to exercise at this stage, was gradually, resigned into the hands of the community when civil society was organised. (g.) From this Locke argues that *absolute monarchy is not a form of civil Government at all*, as there is no common authority (either of laws or councils) to appeal to, and the sovereign is still in a state of nature with regard to his subjects. (h) When a community is formed into one body, the decision of the majority must be held binding on the rest, unanimity being no longer required (nor available, as rule.) He admits, however, that the earliest Governments were monarchies, with no well-defined limitations of power, till the abuse of this power led to the institution of laws. (i) As to the consent of all free men necessary to organise a society, Locke holds that this consent may be merely the tacit one of living within the territorial limits of the community. (j) Locke then proceeds to Representative Government. The whole power of the state being exercised by the majority, they may delegate it to one or more

representatives, but the laws enacted must be conformable to the will of God, or to natural justice. (k) Nor can the legislature take any part of the subjects' property without their own consent, or the consent of the majority. (l) The legislative power being delegated from the people, cannot be transferred to others. [This part of Locke's treatise, says Hallam, has been open to most objection, as it seems to charge all the established Governments of Europe with usurpation; it has been a theory fertile of great revolutions.] (m) The people themselves may alter the legislature whenever they find that it acts against the trust reposed in it. In this connection, Locke anticipates in a remarkable manner the views of Parliamentary reform which were given effect to nearly a century and a half later, though it is by an exercise of the royal prerogative that he suggests the evil should be remedied. (n) Locke defines *Prerogative* as "a power of acting according to discretion for the public good, without the prescription of law, and sometimes even against it." This definition has been objected to as partial and incorrect. (o) As to rights of conquest, Locke denies that any can be conferred by an unjust war, or that any one is bound by promises extorted from him by unjust force; and holds that even just conquest gives no further right than to reparation for the injury inflicted. (p) It follows from the above principle that usurpation, which is a kind of domestic conquest, confers no right, and leaves the people at liberty to overthrow it as soon as they can. (q) As to resistance to a sovereign who is no usurper, Locke holds that force may never be opposed except to unlawful and unjust force; but that the King's person need not be held sacred, where by putting himself into a state of war with his people, he virtually puts an end to the Government. Locke does not apprehend that the prevalence of such doctrines will make all governments unstable: for he thinks mankind are too slow and opposed to change, so that they will endure much from their rulers before they rise in revolt or even murmur.

As to Locke's pamphlets on finance, the liberty of the Press &c., it seems unnecessary to add to the short account given of them in Sec. I. of this Introduction—the chronological sketch.

**VIII. Thoughts on Education.** This famous book, one of the best ever written on the subject, may, says Hallam, be regarded as an introduction to the *Conduct*. Locke severely condemns the methods of education employed in his age, as well as its aim, which was simply to cram as much book-learning as possible. His aim, on the other hand was, to combine with book-knowledge the fullest culture of the intellectual and moral faculties, the improvement of bodily health, as well as the accomplishments which it was thought desirable for a gentleman to possess. Taking education in this extensive sense, it was no wonder that he should have entertained a very high opinion of the efficacy of education. He says that nine-tenths of the people "are what they are, good or evil, useful or not, by their education." He seems to have gone too far, however, in ignoring the specific differences between mind and mind. Locke speaks first of domestic education, which was in his time of a wretched kind,\* and reminds one of what children often get in this country, where it is so common to jest with children and accustom them to vile words and thoughts. They were moreover treated in just the way in which they are often treated in this country,—viz. with alternate severity and foolish indulgence. He recognises the mischief of curing the unruly temper of a child by over-severe treatment, which often ends in making him a poor, low-spirited creature, who may please silly people that praise tame inactive (Bengali *santa*) children, because they make no noise and give them no trouble,—though they generally turn out useless, after exhibiting, perhaps, a little precocity in book-learning for the first few years. As to schoolmasters, they relied on the method of punishment by stripes, not only in enforcing discipline, but in ensuring study. Locke strongly censures this method, and acutely observes, "I cannot think any correction useful to a child where the shame of suffering for having done amiss does not work more pain than the pain." He relies on the force of praise as a reward, and of disgrace as a punishment. And he gives the sound advice that children should be much with their parents, and be allowed all reasonable liberty.

\* "I desire to know what vice can be named which parents and those about children do not season them with, and drop into them the seeds of, as often as they are capable to receive them."—*Thoughts on Education*.

As to the comparative merits of education in schools and at home, Locke seems to prefer the latter; though his judgment is based merely on the dangerous state of public school life in his time, for he recognises the importance of giving the boys a knowledge of what they may expect in the world. As to the qualifications of a tutor, Locke regards knowledge of the world and good breeding more necessary than mere scholarship; because in the education of an English gentleman, he thinks virtue, knowledge of the world, civility and learning should all enter, but that the last is of less importance than the others.

As the different branches of learning, Locke lays no particular stress on Greek,—in Latin he would rely most on the method of learning vocabulary before grammar and the practice of talking in Latin (the method warmly advocated by Prof. Blackie at the present day.) He would place French before Latin, insist upon Geometry (but only what is to be found in Euclid) Geography, History and Chronology, Drawing, and some knowledge of international jurisprudence. He seems to think lightly of the difficulty of acquiring knowledge to the average mind, as all men of superior intelligence are so apt to do;\* and as Lewes observes, he assumes that children or young men will learn a great deal if judiciously left to themselves, the truth being that *the majority have to be educated by force.*

This great work has exercised considerable influence in shaping subsequent theories about education, and as Mr Shaw observes "Much of what is humane and philosophical in Rousseau's *Emile* is plainly borrowed from Locke."

**IX. Style.** It is only because Locke is a clear thinker that his language is as a rule easily understood; he seems to have paid no attention to style as such. He is often needlessly prolix in his statements, and involved in his sentences. But, as Rogers says, "the language was just feeling its way to the elegance of construction at which it arrived in Addison's time. His language is, like himself, plain, homely, business-like, practical." His prolixity, often tiresome to his readers, is accounted for by the "invincible patience" which he himself possessed, and by his habit of viewing a subject

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\* See *Conduct*, Sec. 19, and the notes to that section.



on all sides. He had moreover formed, as St. John observes, a theory of composition—that the philosophical style should be quite bald and scrupulously precise, as free as possible from figures of speech\*, which in his opinion distort and colour the medium through which we contemplate truths. (*See Conduct*, sec. 32). This theory may also account for the roughness and inartistic structure of his sentences in many places. St. John calls him an exact representative in this respect of the English nation, which has never been celebrated for much external polish and refinement, though no people in Europe has equalled it in impetuous eloquence, profound philosophy, or the highest flights of imaginative grandeur in poetry. It is to this careless and occasionally even slovenly style, that the fact of Locke being little read at the present day is partly to be attributed. Hallam however remarks of Locke's style that it is wanting in philosophical precision, and though a good model of English language, is too idiomatic and colloquial, too indefinite and figurative for the abstruse subjects with which he has to deal; and he accounts for this by reference to Locke's excessive desire of popularising the subject and shunning the technical pedantry which had repelled the world from philosophy.

**IX. Conduct of the Understanding: criticisms.**—Hallam<sup>†</sup> speaks very highly of this little treatise, which, he says, is a sequel to the *Thoughts on Education*, and embodies a scheme of that education which an adult man should give himself; no parent or instructor is justified in neglecting to put this treatise in the hands of a boy at the time when his reasoning powers become developed. "It will give him a sober and serious, not flippancy or self-conceited independency of thinking; and while it teaches how to distrust ourselves and to watch those prejudices which necessarily grow up from one cause or another, will inspire a reasonable confidence in what he has well considered, by taking off a little of that deference to authority, which is the more to be regretted in its excess, that

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\* Locke had, however, a secret liking for metaphors and analogies, some of which seem to have carried him a little too far; and it is probably because he knew the danger of the practice of indulging in them, that he warns others against them.

—like its cousin-german, party-spirit—it is frequently united to loyalty of heart and the generous enthusiasm of youth.” In it Locke shows his usual praiseworthy diligence in hunting error to its lurking-places. It was “originally designed as an additional chapter to the Essay,\* and is as it were the ethical application of its theory, and ought always be read with it—if indeed for the sake of its practical utility it should not come sooner into the course of education. Locke’s object. Aristotle himself, and the whole of his dialectical school, had pointed out many of the sophisms against which we should guard our reasoning faculties; but these are chiefly such as others attempt to put upon us in dispute. There are more dangerous fallacies by which we cheat ourselves: prejudice, partiality, self interest, vanity, inattention, and indifference to truth. Locke who was as exempt from these as almost any man who has turned his mind to so many subjects, has dwelt on the *moral discipline of the intellect* in this treatise, better than any of his predecessors....He labours to secure the inquirer from that previous persuasion of his own opinion which generally renders all his pretended investigation of its truth illusory and nugatory. But the *indifferency* which he recommends to everything except truth itself, so that we *should not even wish anything to be true* before we have examined whether it be so, seems to involve the impossible hypothesis that man is but a purely reasoning being. It is vain to press the recommendation of freedom from prejudice so far; since we cannot but conceive some propositions to be more connected with our welfare than others and consequently desire their truth. These exaggerations lay a fundamental condition of honest inquiry open to the sneers of its adversaries; and it is sufficient (because nothing more is really attainable) first to dispossess ourselves of the notion that our interests are concerned where they are not, and next (even when we cannot but wish one result of our inquiries rather than another) to be the more unremitting in our endeavours

\* In a letter to his friend Molyneux, in 1697 Locke observes:| “I have written several pages on this subject; but the matter, the farther I go, opens the more on me, and I cannot yet get sight of any end of it. The title of the chapter will be *Of the Conduct of the Understanding*, which, if I shall pursue as far as I imagine it will reach, will, I conclude make the largest chapter of my *Essay*.”

to exclude this bias from our reasoning,"—Hallam's *Literature of Europe*, Part IV. Ch. iii.

Shaw speaks of the *Conduct* as a small but admirable little book, containing "a kind of manual of reflections upon all those natural defects or acquired evil habits of the mind, which unfit it for the task of acquiring and retaining knowledge. It shows an acuteness and scope of observation not inferior to that exhibited in his great anterior work, together with the same calm but ardent spirit of humanity and benevolence which animates all the writings, as it did the whole life, of this great and excellent man."—*History of Eng. Literature*, ch. XIV.

Locke's enthusiastic editor, Mr. J. A. St. John puts forward the following reason for his placing the *Conduct of the H. Und.* as a sort of introduction to Locke's other philosophical works: "It furnishes an outline of his whole system of philosophy, happily conceived, and finished with far more care than is usually supposed. The object of this short treatise is twofold: *first*, to describe the extent and evils of popular ignorance;\* and *secondly*, to exhort mankind to the study of philosophy. It is a work full of ease and animation and all that kind of eloquence which springs from a perfect knowledge of the subject; for composed during the last years of the author's life, when he had completed his survey of the realms of knowledge, and brought to the utmost maturity of which they were susceptible, both his opinions and theories, it has less the character of an inquiry than of a harangue delivered *ex cathedra*,—without that hesitation and modest diffidence which in the *Essay* appear sometimes to impede the free current of his thoughts. He has likewise introduced more abundantly perhaps than in any other part of his writings those fruits of long experience and wisdom,—profound maxims and pregnant sentences, which at once captivate the imagination and enlarge the mind." And in his Introduction to the

\* It is not, however, the ignorance of the common people that Locke deploras, so much, as that of "those that have time and the means to attain knowledge,.... who by the industry and parts of their ancestors have been set free from a constant drudgery to their backs and their bellies." *Conduct*, sec. 7.

*Conduct*, this editor further observes : "Locke has seldom obtained all the credit due to him for the following brief treatise. Nevertheless it is in every respect deserving of high praise. When he wrote it the author had learned, by the reception his own philosophy had met with, how hard it is to give currency to new truths, which are commonly suspected for counterfeits, His doctrines had been misunderstood, his motives misinterpreted ; his indignation against prejudice and calumny, against the obstinacy which is blind to the beauties of truth,—and the timidity which though perceiving refuses to acknowledge it—was therefore wound up to a high pitch and brought some relief for his mind in exposing the contemptible weakness and the perverse selfishness by which philosophy like religion is thwarted in its benevolent endeavours to enlighten and fortify the mind. This is the object of the *Conduct of the Understanding*. It is an apology for philosophy, full of the highest wisdom, the most exquisite good sense, and is rendered doubly, piquant by a tone of resentment, mingled with and modifying his yearning to be of service to his fellow-creatures. Though written later in the order of time, it should now be regarded as an introduction to the greater *Essay*, being written in a style more sprightly, popular, and easy—abounding in figures and brilliant sallies of the fancy—and therefore calculated to operate as a recommendation to the more formidable speculations that succeed it. \* \* Some few repetitions there are, together with a certain roughness, and slight inaccuracies of style, which may perhaps be owing to its posthumous publication, and to the author's indifference on the niceties of language and composition. But these few and small imperfections are scarcely visible amid the crowd of beauties which press upon the sight. From first to last the chain of reasoning proceeds in one almost unbroken flow. It more resembles an oration, in its ornaments and magnificence, than a philosophical treatise. Its language is quick, full, vehement. Argument does not here disdain the alliance of wit, or irony, or satire. Every weapon which can pierce ignorance, or beat down the defences of fraud, is seized and wielded with surprising vigour and adroitness. The reader, expecting mere instruction, is surprised at finding the

most animate entertainment." [All this seems rather too high-flown.]

Dugald Stewart remarks of the views expressed in the *Conduct*, that he (Locke) seems to trust too much to nature, and lay too little stress on logical rules, while in his *Tract on Education*, he falls into the opposite extreme in everything connected with the culture of the heart;—distrusting nature altogether, and placing his sole confidence in the effects of a systematical and vigilant discipline. Stewart then remarks that Locke has availed himself very little in his *Conduct* of his own favourite doctrine of the Association of Ideas. "He has been, indeed, at sufficient pains to warn parents of the mischievous consequences from this part of our constitution, if not diligently watched over in our infant years. But he seems to have altogether overlooked the positive and immense resources which might be derived from it, in the culture and amelioration, both of our intellectual and moral powers;—in strengthening, for instance, by early *habits* of right thinking, the authority of reason and of conscience."—Dugald Stewart's *Dissertation*, Part II.

Prof. Fowler, in his *Life of Locke* (*English Men of Letters* pp. 177-8.) remarks that the great defect of the little treatise is its singular want of method—due probably to its never having been revised—and the constant repetitions met with in it, especially\* in the attacks on what *Locke seems to have regarded as the main hindrances to the acquisition of a sound understanding, viz., prejudice and pedantry*. But he observes that the work abounds in just observations, and valuable cautions and suggestions and exhibits the author's profound acquaintance with the workings of the human mind: and that it is eminently fitted to be used as a "Student's guide." "This admirable little volume, which may be read in three or four hours, appears to have been intended by Locke as at least a partial substitute for the ordinary logic. As in matters of conduct, so in the things of the intellect, he thought little of rules. It was only by practice and habituation that men could become either virtuous or wise." Prof. F. goes on to observe that rules cannot be dispensed with, and the old scholastic logic requires, as Bacon said, "to be supplemented rather than replaced."











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OF THE

CONDUCT OF THE UNDERSTANDING.

**1. Introduction.**—The last resort a man has recourse to in the conduct of himself is his understanding; for though we distinguish the faculties of the mind, and give the supreme command to the will as to an agent, yet the truth is, the man which is the agent determines himself to this or that voluntary action upon some precedent knowledge, or appearance of knowledge, in the understanding. No man ever sets himself about any thing but upon some view or other which serves him for a reason for what he does: and whatsoever faculties he employs, the understanding, with such light as it has, well or ill informed, constantly leads; and by that light, true or false, all his operative powers are directed. The will itself, how absolute and uncontrollable soever it may be thought, never fails in its obedience to the dictates of the understanding. Temples have their sacred images, and we see what influence they have always had over a great part of mankind. But in truth the ideas and images in men's minds are the invisible powers that constantly govern them, and to these they all universally pay a ready submission. It is therefore of the highest concernment that great care should be taken of the understanding, to conduct it right in the search of knowledge and in the judgments it makes.

The logic now in use has so long possessed the chair, as the only art taught in the schools, for the direction of the mind in the study of the arts and sciences, that it would perhaps be thought an affectation of novelty to suspect that rules that have served the learned world these two or three thousand years, and which, without any

complaint of defects, the learned have rested in, are not sufficient to guide the understanding. And I should not doubt but this attempt would be censured as vanity or presumption, did not the great Lord Verulam's authority justify it; who, not servilely thinking learning could not be advanced beyond what it was, because for many ages it had not been, did not rest in the lazy approbation and applause of what was, because it was, but enlarged his mind to what might be. In his preface to his *Novum Organum*, concerning logic, he pronounces thus: "Quisummas dialecticæ pares tribuerunt atque inde fidissima scientiis præsidia comparari putârunt, verissimè et optimè viderunt intellectum humanum sibi permissum merito suspectum esse debere. Verum infirmior omninò est malo medicina; nec ipsa mali experts. Siquidem dialectica quæ recepta est, licet ad civilia et artes quæ in sermone et opinione positæ sunt rectissimè adhibeatur; naturæ tamen subtilitatem longo intervallo non attingit, et prensando quod non capit, ad errores potius stabiliendos et quasi fingendos quam ad viam veritati aperiendam valuit."

"They," says he, "who attributed so much to logic, perceived very well and truly, that it was not safe to trust the understanding to itself without the guard of any rules. But the remedy reached not the evil, but became a part of it; for the logic which took place, though it might do well enough in civil affairs and the arts which consisted in talk and opinion, yet comes very far short of subtlety in the real performances of nature; and, catching at what it cannot reach, has served to confirm and establish errors, rather than to open a way to truth." And therefore a little after he says, "That it is absolutely necessary that a better and perfecter use and employment of the mind and understanding should be introduced." "Necessariò requiritur ut melior et perfectior mentis et intellectûs humani usus et adoperatio introducatur."

**2. Parts.**—There is, it is visible, great variety in men's understanding, and their natural constitutions put so wide a difference between some men in this respect, that art and industry would never be able to master, and their very

natures seem to want a foundation to raise on it that which other men easily attain unto. Amongst men of equal education there is great inequality of parts. And the woods of America, as well as the schools of Athens, produce men of several abilities in the same kind. Though this be so, yet I imagine most men come very short of what they might attain unto in their several degrees, by a neglect of their understandings. A few rules of logic are thought sufficient in this case for those who pretend to the highest improvement; whereas I think there are a great many natural defects in the understanding capable of amendment, which are overlooked and wholly neglected. And it is easy to perceive that men are guilty of a great many faults in the exercise and improvement of this faculty of the mind, which hinder them in their progress and keep them in ignorance and error all their lives. Some of them I shall take notice of, and endeavour to point out proper remedies for, in the following discourse.

**3. Reasoning.**—Besides the want of determined ideas, and of sagacity and exercise in finding out and laying in order intermediate ideas, there are three miscarriages that men are guilty of in reference to their reason, whereby this faculty is hindered in them from that service it might do and was designed for. And he that reflects upon the actions and discourses of mankind, will find their defects in this kind very frequent and very observable.

i. The first is of those who seldom reason at all, but do and think according to the example of others, whether parents, neighbours, ministers, or who else they are pleased to make choice of to have an implicit faith in, for the saving of themselves the pains and trouble of thinking and examining for themselves.

ii. The second is of those who put passion in the place of reason, and, being resolved that shall govern their actions and arguments, neither use their own nor hearken to other people's reason, any further than it suits their humour, interest, or party; and these one may observe commonly content themselves with words which have no distinct ideas to them; though, in other matters, that they



come with an unbiassed indifferency to, they want not abilities to talk and hear reason, where they have no secret inclination that hinders them from being tractable to it.

iii. The third sort is of those who readily and sincerely follow reason, but for want of having that which one may call large, sound, round-about sense, have not a full view of all that relates to the question and may be of moment to decide it. We are all short-sighted, and very often see but one side of a matter ; our views are not extended to all that has a connection with it. From this defect I think no man is free. We see but in part, and we know but in part, and therefore it is no wonder we conclude not right from our partial views. This might instruct the proudest esteemer of his own parts, how useful it is to talk and consult with others, even such as come short of him in capacity, quickness and penetration ; for since no one sees all, and we generally have different prospects of the same thing, according to our different (as I may say), positions to it, it is not incongruous to think nor beneath any man to try, whether another may not have notions of things which have escaped him, and which his reason would make use of if they came into his mind. The faculty of reasoning seldom or never deceives those who trust to it ; its consequences from what it builds on, are evident and certain ; but that which it oftenest (if not only) misleads us in, is, that the principles from which we conclude, the grounds upon which we bottom our reasoning, are but a part ; something is left out which should go into the reckoning to make it just and exact. Here we may imagine a vast and almost infinite advantage that angels and separate spirits may have over us, who, in their several degrees of elevation above us, may be endowed with more comprehensive faculties ; and some of them perhaps have perfect and exact views of all finite beings that come under their consideration, can, as it were, in the twinkling of an eye, collect together all their scattered and almost boundless relations. A mind so furnished, what reason has it to acquiesce in the certainty of its conclusions !

In this we may see the reason why some men of study and thought, that reason right and are lovers of truth, do make no great advances in their discoveries of it. Error and truth are uncertainly blended in their minds ; their decisions are lame and defective, and they are very often mistaken in their judgments : the reason whereof is they converse but with one sort of men, they read but one sort of books, they will not come in the hearing but of one sort of notions ; the truth is, they canton out to themselves a little Goshen in the intellectual world, where light shines, and, as they conclude, day blesses them ; but the rest of that vast expansum they give up to night and darkness, and so avoid coming near it. They have a pretty traffic with known correspondents in some little creek ; within that they confine themselves, and are dexterous managers enough of the wares and products of that corner with which they content themselves, but will not venture out into the great ocean of knowledge, to survey the riches that nature hath stored other parts with, no less genuine, no less solid, no less useful, than what has fallen to their lot in the admired plenty and sufficiency of their own little spot, which to them contains whatsoever is good in the universe. Those who live thus mewed up within their own contracted territories, and will not look abroad beyond the boundaries that chance, conceit, or laziness has set to their inquiries, but live separate from the notions, discourses and attainments of the rest of mankind, may not amiss be represented by the inhabitants of the Marian islands, who, being separated by a large tract of sea from all communion with the habitable parts of the earth, thought themselves the only people of the world. And though the straitness of the conveniences of life amongst them had never reached so far as to the use of fire, till the Spaniards, not many years since, in their voyages from Acapulco to Manilla brought it amongst them ; yet in the want and ignorance of almost all things, they looked upon themselves, even after that the Spaniards had brought amongst them the notice of variety of nations abounding in sciences, arts and conveniences of life, of which they knew nothing, they looked upon themselves, I say, as the happiest and wisest people of the universe.

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But for all that, nobody, I think, will imagine them deep naturalists, or solid metaphysicians; nobody will deem the quickest-sighted amongst them to have very enlarged views in ethics or politics; nor can any one allow the most capable amongst them to be advanced so far in his understanding as to have any other knowledge but of the few little things of his and the neighbouring islands within his commerce, but far enough from that comprehensive enlargement of mind which adorns a soul devoted to truth, assisted with letters, and a free consideration of the several views and sentiments of thinking men of all sides.

Let not men, therefore, that would have a sight of what every one pretends to be desirous to have a sight of,—truth in its full extent,—narrow and blind their own prospect. Let not men think there is no truth but in the sciences that they study, or the books that they read. To prejudge other men's notions, before we have looked into them is not to show their darkness, but to put out our own eyes. "Try all things, hold fast that which is good," is a divine rule coming from the Father of light and truth, and it is hard to know what other way men can come at truth, to lay hold of it, if they do not dig and search for it as for gold and hid treasure. But he that does so must have much earth and rubbish before he gets the pure metal; sand, and pebbles, and dross usually lie blended with it. But the gold is nevertheless gold, and will enrich the man that employs his pains to seek and separate it. Neither is there any danger he should be deceived by the mixture. Every man carries about him a touchstone, if he will make use of it, to distinguish substantial gold from superficial glitterings, truth from appearances. And indeed the use and benefit of this touchstone, which is *natural reason*, is spoiled and lost only by assuming prejudices, overweening presumption, and narrowing our minds. The want of exercising it in the full extent of things intelligible, is that which weakens and extinguishes this noble faculty in us. Trace it and see whether it be not so. The day-labourer in a country village has commonly but a small pittance of knowledge, because his ideas and notions have been confined to the narrow bounds of a poor conversation and employment: the low

## REASONING.

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mechanic of a country town does somewhat outdo him : porters and cobblers of great cities surpass them. A country gentleman who, leaving Latin and learning in the university, removes thence to his mansion house, and associates with neighbours of the same strain, who relish nothing but hunting and a bottle ; with those alone he spends his time, with those alone he converses, and can away with no company whose discourse goes beyond what claret and dissoluteness inspire. Such a patriot, formed in this happy way of improvement, cannot fail, as we see, to give notable decisions upon the bench at quarter-sessions, and eminent proofs of his skill in politics, when the strength of his purse and party have advanced him to a more conspicuous station. To such a one, truly, an ordinary coffee-house gleaner of the city is an arrant statesman, and as much superior to, as a man conversant about Whitehall and the Court is to an ordinary shopkeeper.

To carry this a little farther : here is one muffled up in the zeal and infallibility of his own sect, and will not touch a book or enter into debate with a person that will question any of those things which to him are sacred. Another surveys our differences in religion with an equitable and fair indifference, and so finds probably, that none of them are in everything unexceptionable. These divisions and systems were made by men, and carry the mark of fallible on them ; and in those whom he differs from, and, till he opened his eyes, had a general prejudice against, he meets with more to be said for a great many things than before he was aware of, or could have imagined. Which of these two now is most likely to judge right in our religious controversies, and to be most stored with truth, the mark all pretend to aim at ? All these men that I have instanced in, thus unequally furnished with truth and advanced in knowledge, I suppose of equal natural parts ; all the odds between them has been the different scope that has been given to their understandings to range in, for the gathering up of information, and furnishing their heads with ideas, notions and observations, whereon to employ their minds and form their understandings.

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It will possibly be objected, who is sufficient for all this? I answer, more than can be imagined. Every one knows what his proper business is, and what, according to the character he makes of himself, the world may justly expect of him; and to answer that, he will find he will have time and opportunity enough to furnish himself, if he will not deprive himself by a narrowness of spirit of those helps that are at hand. I do not say to be a good geographer, that a man should visit every mountain, river, promontory and creek upon the face of the earth, view the buildings, and survey the land everywhere, as if he were going to make a purchase; but yet every one must allow that he shall know a country better that makes often sallies into it and traverses it up and down, than he that like a mill-horse goes still round in the same track, or keeps within the narrow bounds of a field or two that delight him. He that will inquire out the best books in every science, and infrom himself of the most material authors of the several sects of philosophy and religion, will not find it an infinite work to acquaint himself with the sentiments of mankind concerning the most weighty and comprehensive subjects. Let him exercise the freedom of his reason and understanding in such a latitude as this, and his mind will be strengthened, his capacity enlarged, his faculties improved; and the light, which the remote and scattered parts of truth will give to one another, will so assist his judgment, that he will seldom be widely out, or miss giving proof of a clear head and a comprehensive knowledge. At least, this is the only way I know to give the understanding its due improvement to the full extent of its capacity, and to distinguish the two most different things I know in the world,—a logical chicaner from a man of reason. Only, he that would thus give the mind its flight, and send abroad his inquiries into all parts after truth, must be sure to settle in his head determined ideas of all that he employs his thoughts about, and never fail to judge himself, and judge unbiassedly of all that he receives from others, either in their writings or discourses. Reverence or prejudice must not be suffered to give beauty or deformity to any of their opinions.

**4. Practice and Habits.**—We are born with faculties and powers capable almost of anything, such at least as would carry us further than can easily be imagined ; but it is only the exercise of those powers which gives us ability and skill in anything, and leads us towards perfection.

A middle-aged ploughman will scarce ever be brought to the carriage and language of a gentleman, though his body be as well-proportioned, and his joints as supple, and his natural parts not any way inferior. The legs of a dancing-master and the fingers of a musician fall as it were naturally, without thought or pains, into regular and admirable motions. Bid them change their parts, and they will in vain endeavour to produce like motions in the members not used to them, and it will require length of time and long practice to attain but some degrees of a like ability. What incredible and astonishing actions do we find rope-dancers and tumblers bring their bodies to ! Not but that sundry in almost all manual arts are as wonderful ; but I name those which the world takes notice of for such, because on that very account they give money to see them. All these admired motions—beyond the reach, and almost the conception, of unpractised spectators,—are nothing but the mere effects of use and industry in men whose bodies have nothing peculiar in them from those of the amazed lookers-on.

As it is in the body, so it is in the mind ; practice makes it what it is. And most even of those excellencies which are looked on as natural endowments, will be found, when examined into more narrowly, to be the product of exercise, and to be raised to that pitch only by repeated actions. Some men are remarked for pleasantness in raillery ; others for apologies and apposite diverting stories. This is apt to be taken for the effect of pure nature ; and that the rather, because it is not got by rules, and those who excel in either of them never purposely set themselves to the study of it as an art to be learnt. But yet it is true, that at first some lucky hit, which took with somebody and gained him commendation, encouraged him to try again, inclined his thoughts and endeavours that way, till at last he insen-

sibly got a facility in it without perceiving how ; and that is attributed wholly to nature which was much more the effect of use and practice. I do not deny that natural disposition may often give the first rise to it, but that never carries a man far without use and exercise ; and it is practice alone that brings the powers of the mind as well as those of the body to their perfection. Many a good poetic vein is buried under a trade, and never produces anything for want of improvement. We see the ways of discourse and reasoning are very different, even concerning the same matter, at Court and in the University. And he that will go but from Westminster Hall to the Exchange, will find a different genius and turn in their ways of talking ; and yet one cannot think that all whose lot fell in the city were born with different parts from those who were bred at the University or Inns of Court.

To what purpose all this, but to show that the difference, so observable in men's understandings and parts, does not arise so much from their natural faculties as acquired habits. He would be laughed at, that should go about to make a fine dancer out of a country hedger at past fifty. And he will not have much better success, who shall endeavour at that age to make a man reason well, or speak handsomely, who has never been used to it, though you should lay before him a collection of all the best precepts of logic or oratory. Nobody is made anything by hearing of rules, or laying them up in his memory ; practice must settle the habit of doing without reflecting on the rule ; and you may as well hope to make a good painter or musician extempore by a lecture and instruction in the arts of music and painting, as a coherent thinker or strict reasoner by a set of rules, showing him wherein right reasoning consists.

This being so, that defects and weakness in men's understandings, as well as other faculties, come from want of right use of their own minds, I am apt to think the fault is generally mislaid upon nature, and there is often a complaint of want of parts, when the fault lies in want of a due improvement of them. We see men frequently dexterous and sharp enough in making a bargain,

who, if you reason with them about matters of religion appear perfectly stupid.

**5. Ideas.**—I will not here, in what relates to the right conduct and improvement of the understanding, repeat again the getting clear and determined ideas, and the employing our thoughts rather about them than about sounds put for them, nor of settling the signification of words which we use with ourselves in the search of truth or with others in discoursing about it. Those hindrances of our understandings in the pursuit of knowledge, I have sufficiently enlarged upon in another place ; so that nothing more needs here to be said of those matters.

**6. Principles.**—There is another fault that stops or misleads men in their knowledge which I have also spoken something of, but yet is necessary to mention here again that we may examine it to the bottom and see the root it springs from ; and that is a custom of taking up with principles that are not self-evident and very often not so much as true. It is not unusual to see men rest their opinions upon foundations that have no more certainty and solidity than the propositions built on them and embraced for their sake. Such foundations are these and the like,—namely ; the founders or leaders of my party are good men, and, therefore their tenets are true ; it is the opinion of a sect that is erroneous, therefore it is false ; it hath been long received in the world, therefore it is true ; or it is new, and therefore false.

These, and many the like, which are by no means the measures of truth and falsehood, the generality of men make the standards by which they accustom their understanding to judge. And thus they falling into a habit of determining truth and falsehood by such wrong measures, it is no wonder they should embrace, error for certainty, and be very positive in things they have no ground for.

There is not any who pretends to the least reason, but, when any of these his false maxims are brought to the test, must acknowledge them to be fallible, and such as he will not allow in those that differ from him ; and yet,



after he is convinced of this, you shall see him go on in the use of them, and the very next occasion that offers argue again upon the same grounds. Would one not be ready to think that men are willing to impose upon themselves and mislead their own understandings, who conduct them by such wrong measures, even after they see they cannot be relied on? But yet they will not appear so blameable as may be thought at first sight; for I think there are a great many that argue thus in earnest, and do it not to impose on themselves or others. They are persuaded of what they say, and think there is weight in it, though in a like case they have been convinced there is none; but men would be intolerable to themselves, and contemptible to others, if they should embrace opinions without any ground, and hold what they could give no manner of reason for. True or false, solid or sandy, the mind must have some foundation to rest itself upon; and as I have remarked in another place, it no sooner entertains any proposition, but it frequently hastens to some hypothesis to bottom it on; till then it is unquiet and unsettled. So much do our own very tempers dispose us to a right use of our understandings, if we would follow as we should the inclinations of our nature.

In some matters of concernment, especially those of religion, men are not permitted to be always wavering and uncertain. They must embrace and profess some tenets or other; and it would be a shame, nay, a contradiction too heavy for any one's mind to lie constantly under, for him to pretend seriously to be persuaded of the truth of any religion, and yet not to be able to give any reason of his belief, or to say any thing for his preference of this to any other opinion. And therefore they must make use of some principles or other; and those can be no other than such as they have and can manage; and to say they are not in earnest persuaded by them, and do not rest upon those they make use of, is contrary to experience, and to allege that they are not misled when we complain they are.

If this be so, it will be urged, why then do they not rather make use of sure and unquestionable principles,

than rest on such grounds as may deceive them, and will, as is visible, serve to support error as well as truth? To this I answer, the reason why they do not make use of better and surer principles is because they cannot. But this inability proceeds not from want of natural parts (for those few whose case that is are to be excused), but for want of use and exercise. Few men are from their youth accustomed to strict reasoning, and to trace the dependence of any truth, in a long train of consequences, to its remote principles, and to observe its connexion; and he that by frequent practice has not been used to this employment of his understanding, it is no more wonder that he should not, when he is grown into years, be able to bring his mind to it, than that he should not be on a sudden able to grave or design, dance on the ropes, or write a good hand, who has never practised either of them.

Nay, the most of men are so wholly strangers to this, that they do not so much as perceive their want of it. They despatch the ordinary business of their callings by rote, as we say, as they have learnt it; and, if at any time they miss success, they impute it to anything rather than want of thought or skill; that they conclude (because they know no better) they have in perfection. Or if there be any subject that interest or fancy has recommended to their thoughts, their reasoning about it is still after their won fashion; be it better or worse, it serves their turns, and is the best they are acquainted with; and therefore, when they are led by it into mistakes, and their business succeeds accordingly, they impute it to any cross accident, or default of others, rather than to their own want of understanding; that is what no body discovers or complains of in himself. Whatsoever made his business to miscarry, it was not want of right thought and judgment in himself: he sees no such defect in himself, but is satisfied that he carries on his designs well enough by his own reasoning, or at least should have done, had it not been for unlucky traverses not in his power. Thus, being content with this short and very imperfect use of his understanding, he never troubles himself to seek out methods of improving

his mind, and lives all his life without any notion of close reasoning in a continued connexion of a long train of consequences from sure foundations,—such as is requisite for the making out, and clearing most of the speculative truths most men own to believe and are most concerned in. Not to mention here what I shall have occasion to insist on by and by more fully—namely, that in many cases it is not one series of consequences will serve the turn, but many different and opposite deductions must be examined and laid together, before a man can come to make a right judgment of the point in question. What then can be expected from men that neither see the want of any such kind of reasoning as this ; nor, if they do, know they how to set about it, or could perform it ? You may as well set a countryman who scarce knows the figures, and never cast up a sum of three particulars, to state a merchant's long account, and find the true balance of it.

What then should be done in the case ? I answer, we should always remember what I said above, that the faculties of our souls are improved and made useful to us just after the same manner as our bodies are. Would you have a man write or paint, dance or fence well, or perform any other manual operation dexterously and with ease ; let him have ever so much vigour and activity, suppleness and address naturally, yet no body expects this from him unless he has been used to it, and has employed time and pains in fashioning and forming his hand or outward parts to these motions. Just so it is in the mind ; would you have a man reason well, you must use him to it betimes, exercise his mind in observing the connexion of ideas and following them in train. Nothing does this better than mathematics which therefore I think should be taught all those who have the time and opportunity, not so much to make them mathematicians as to make them reasonable creatures ; for though we all call ourselves so, because we are born to it if we please, yet we may truly say nature gives us but the seeds of it ; we are born to be, if we please, rational creatures, but it is use and exercise only that makes us so, and we are indeed so no further than industry and application had carried us. And therefore, in ways of reasoning which men have

not been used to, he that will observe the conclusions, they take up must be satisfied they are not all rational.

This has been the less taken notice of because every one in his private affairs, uses some sort of reasoning or other, enough to denominate him reasonable. But the mistake is, that he that is found reasonable in one thing is concluded to be so in all, and to think or say otherwise is thought so unjust an affront, and so senseless a censure, that no body ventures to do it. It looks like the degradation of a man below the dignity of his nature. It is true that he that reasons well in any one thing has a mind naturally capable of reasoning well in others, and to the same degree of strength and clearness, (and possibly much greater,) had his understanding been so employed. But it is as true that he, who can reason well to-day about one sort of matters, cannot at all reason to-day about others, though perhaps a year hence he may. But wherever a man's rational faculty fails him and will not serve him to reason, there we cannot say he is rational, how capable soever he may be by time and exercise to become so.

Try in men of low and mean education, who have never elevated their thoughts above the spade and the plough, nor looked beyond the ordinary drudgery of a day-labourer. Take the thoughts of such an one, used for many years to one track, out of that narrow compass he has been all his life confined to, you will find him no more capable of reasoning than almost a perfect natural. Some one or two rules, on which their conclusions immediately depend, you will find in most men have governed all their thoughts; these, true or false, have been the maxims they have been guided by: take these from them, and they are perfectly at a loss, their compass and pole star then are gone, and their understanding is perfectly at a nonplus. And therefore they either immediately return to their old maxims again, as the foundations of all truth to them, notwithstanding all that can be said to show their weakness; or, if they give them up to their reasons, they with them give up all truth and further inquiry, and think there is no such thing as certainty. For if you would enlarge their thoughts and settle them upon more remote and surer principles, they either

cannot easily apprehend them, or, if they can, know not what use to make of them, for long deductions from remote principles are what they have not been used to and cannot manage.

What then, can grown men never be improved or enlarged in their understandings? I say not so; but this I think I may say, that it will not be done without industry and application, which will require more time and pains than grown men, settled in their course of life, will allow to it, and therefore very seldom is done. And this very capacity of attaining it by use and exercise only, brings us back to that which I laid down before,—that it is only practice that improves our minds as well as bodies, and we must expect nothing from our understandings any further than they are perfected by habits.

The Americans are not all born with worse understandings than the Europeans, though we see none of them have such reaches in the arts and sciences. And among the children of a poor countryman, the lucky chance of education and getting into the world, gives one infinitely the superiority in parts over the rest, who, continuing at home, had continued also just of the same size with his brethren.

He that has to do with young scholars, especially in mathematics, may perceive how their minds open by degrees, and how it is exercise alone that opens them. Sometimes they will stick a long time at a part of a demonstration, not for want of will and application, but really for want of perceiving the connexion of two ideas that, to one whose understanding is more exercised is as visible as anything can be. The same would be with a grown man beginning to study mathematics; the understanding for want of use often sticks in very plain way, and he himself that is so puzzled, when he comes to see the connexion, wonders what it was he stuck at in a case so plain.

**7. Mathematics.**—I have mentioned mathematics as a way to settle in the mind a habit of reasoning closely and in train; not that I think it necessary that all men should be deep mathematicians, but that, having got the way of

reasoning, which that study necessarily brings the mind to, they might be able to transfer it to other parts of knowledge as they shall have occasion. For in all sorts of reasoning every single argument should be managed as a mathematical demonstration, the connection and dependence of ideas should be followed, till the mind is brought to the source on which it bottoms, and observes the coherence all along; though, in proofs of probability, one such train is not enough to settle the judgment, as in demonstrative knowledge.

Where a truth is made out by one demonstration, there needs no further inquiry; but in probabilities, where there wants demonstration to establish the truth beyond doubt, there it is not enough to trace one argument to its source, and observe its strength and weakness, but all the arguments, after having been so examined on both sides, must be laid in balance one against another, and upon the whole the understanding determine its assent.

This is a way of reasoning the understanding should be accustomed to, which is so different from what the illiterate are used to, that even learned men sometimes seem to have very little or no notion of it. Nor is it to be wondered, since the way of disputing in the schools leads them quite away from it, by insisting on one topical argument, by the success of which the truth or falsehood of the question is to be determined and victory adjudged to the opponent or defendant; which is all one as if one should balance an account by one sum, charged and discharged, when there are an hundred others to be taken into consideration.

This, therefore, it would be well if men's minds were accustomed to, and that early, that they might not erect their opinions upon one single view, when so many others are requisite to make up the account, and must come into the reckoning before a man can form a right judgment. This would enlarge their minds and give a due freedom to their understandings, that they might not be led into error by presumption, laziness or precipitancy. For I think nobody can approve such a conduct of the understanding as should mislead it from truth, though it be ever so much in fashion to make use of it.

To this perhaps it will be objected, that to manage the understanding as I propose, would require every man to be a scholar, and to be furnished with all the materials of knowledge and exercised in all the ways of reasoning. To which I answer, that it is a shame for those that have time and the means to attain knowledge, to want any helps or assistance for the improvement of their understandings that are to be got; and to such I would be thought here chiefly to speak. Those methinks, who, by the industry and parts of their ancestors, have been set free from a constant drudgery to their backs and their bellies, should bestow some of their spare time on their heads, and open their minds by some trials and essays, in all the sorts and matters of reasoning. I have before mentioned mathematics, wherein algebra gives new helps and views to the understanding. If I propose these, it is not, as I said, to make every man a thorough mathematician or a deep algebraist; but yet I think the study of them is of infinite use, even to grown men: *First*, by experimentally convincing them that to make any one reason well it is not enough to have parts where-with he is satisfied and that serve him well enough in his ordinary course. A man in those studies will see, that however good he may think his understanding, yet in many things, and those very visible, it may fail him. This would take off that presumption that most men have of themselves in this part, and they would not be so apt to think their minds wanted no helps to enlarge them, that there could be nothing added to the acuteness and penetration of their understandings.

*Secondly*, the study of mathematics would show them the necessity there is in reasoning, to separate all the distinct ideas, and see the habitudes that all those concerned in the present inquiry have to one another, and to lay by those which relate not to the proposition in hand and wholly to leave them out of the reckoning. This is that which in other subjects, besides quantity is what is absolutely requisite to just reasoning, though in them it is not so easily observed nor so carefully practised. In those parts of knowledge where it is thought demonstration has nothing to do, men reason as it were in the lump; and if, upon a

summary and confused view or upon a partial consideration, they can raise the appearance of a probability, they usually rest content ; especially, if it be in a dispute where every little straw is laid hold on, and everything that can but be drawn in any way to give colour to the argument is advanced with ostentation. But that mind is not in a posture to find the truth, that does not distinctly take all the parts asunder, and, omitting what is not at all to the point, draw a conclusion from the result of all the particulars which any way influence it. There is another no less useful habit to be got by an application to mathematical demonstrations, and that is, of using the mind to a long train of consequences : but, having mentioned that already, I shall not again here repeat it.

As to men whose fortunes and time are narrower, what may suffice them is not of that vast extent as may be imagined, and so comes not within the objection. Nobody is under an obligation to know everything. Knowledge and science in general is the business only of those who are at ease and leisure. Those who have particular callings ought to understand them ; and it is no unreasonable proposal, nor impossible to be compassed, that they should think and reason right about what is their daily employment. This one cannot think them incapable of, without levelling them with the brutes, and charging them with a stupidity below the rank of rational creatures.

**8. Religion.**—Besides his particular calling for the support of this life, every one has a concern in a future life, which he is bound to look after. This engages his thoughts in religion, and here it mightily lies upon him to understand and reason right. Men, therefore, cannot be excused from understanding the words, and framing the general notions, relating to religion right. The one day of seven, besides other days of rest, allows in the Christian world time enough for this (had they no other idle hours), if they would but make use of these vacancies from their daily labour, and apply themselves to an improvement of knowledge with as much diligence, as they often do to a great many other things that are useless, and had but those that would enter



them, according to their several capacities, in a right way to this knowledge. The original make of their minds is like that of other men, and they would be found not to want understanding fit to receive the knowledge of religion, if they were a little encouraged and helped in it as they should be. For there are instances of very mean people who have raised their minds to a great sense and understanding of religion; and though these have not been so frequent as could be wished, yet they are enough to clear that condition of life from a necessity of gross ignorance, and to shew that more might be brought to be rational creatures and Christians (for they can hardly be thought really to be so who, wearing the name, know not so much as the very principles of that religion), if due care were taken of them. For, if I mistake not, the peasantry lately in France (a rank of people under a much heavier pressure of want and poverty than the day-labourers in England) of the reformed religion understood it much better, and could say more for it, than those of a higher condition among us.

But if it shall be concluded that the meaner sort of people must give themselves up to a brutish stupidity in the things of their nearest concernment,—which I see no reason for,—this excuses not those of a freer fortune and education, if they neglect their understandings, and take no care to employ them as they ought and set them right in the knowledge of those things for which principally they were given them. At least those whose plentiful fortunes allow them the opportunities and helps of improvement are not so few, but that it might be hoped great advancements might be made in knowledge of all kinds, especially in that of the greatest concern and largest views, if men would make a right use of their faculties and study their own understandings.

**9. Ideas.**—Outward corporeal objects that constantly importune our senses, and captivate our appetites, fail not to fill our heads with lively and lasting ideas of that kind. Here the mind needs not be set upon getting greater store; they offer themselves fast enough, and are usually entertained in such plenty and lodged so carefully, that the mind

wants room or attention for others that it has more use and need of. To fit the understanding, therefore, for such reasoning as I have been above speaking of, care should be taken to fill it with moral and more abstract ideas; for these not offering themselves to the senses, but being to be framed to the understanding, people are generally so neglectful of a faculty they are apt to think wants nothing, that I fear most men's minds are more unfurnished with such ideas than is imagined. They often use the words, and how can they be suspected to want the ideas? What I have said in the third Book of my Essay, will excuse me from any other answer to this question.

But to convince people of what moment it is to their understandings to be furnished with such abstract ideas, (steady and settled in them) give me leave to ask how any one shall be able to know whether he be obliged to be just, if he has not established ideas in his mind of obligation and of justice,—since knowledge consists in nothing but the perceived agreement or disagreement of those ideas? And so of all others the like which concern our lives and manners. And if men do find a difficulty to see the agreement or disagreement of two angles which lie before their eyes, unalterable in a diagram, how utterly impossible will it be to perceive it in ideas that have no other sensible objects to represent them to the mind but sounds with which they have no manner of conformity, and therefore had need to be clearly settled in the mind themselves, if we would make any clear judgment about them! This, therefore, is one of the first things the mind should be employed about in the right conduct of the understanding, without which it is impossible it should be capable of reasoning right about those matters. But in these, and all other ideas, care must be taken that they harbour no inconsistencies, and that they have a real existence where real existence is supposed, and are not mere chimeras with a supposed existence.

**10. Prejudice**—Every one is forward to complain of the prejudices that mislead other men or parties, as if he were

free, and had none of his own. This being objected on all sides, it is agreed that it is a fault and an hindrance to knowledge. What now is the cure? No other but this, that every man should let alone others' prejudices and examine his own. No body is convinced of his by the accusation of another; he recriminates by the same rule, and is clear. The only way to remove this great cause of ignorance and error out of the world is, for every one impartially to examine himself. If others will not deal fairly with their own minds, does that make any errors truths, or ought it to make me in love with them and willing to impose on myself? If others love cataracts on their eyes, should that hinder me from couching of mine as soon as I can? Every one declares against blindness; and yet who almost is not fond of that which dims his sight, and keeps the clear light out of his mind, which should lead him into truth and knowledge? False or doubtful positions, relied upon as unquestionable maxims, keep those in the dark from truth, who build on them. Such are usually the prejudices imbibed from education, party, reverence, fashion, interest, &c. This is the mote which every one sees in his brother's eyes, but never regards the beam in his own. For who is there almost that is ever brought fairly to examine his own principles, and see whether they are such as will bear the trial? But yet this should be one of the first things every one should set about, and be scrupulous in, who would rightly conduct his understanding in the search of truth and knowledge.

To those who are willing to get rid of this great hindrance of knowledge (for to such only I write), to those who would shake off this great and dangerous impostor prejudice, who dresses up falsehood in the likeness of truth, and so dexterously hoodwinks men's minds as to keep them in the dark with a belief that they are more in the light than any that do not see with their eyes,—I shall offer this one mask whereby prejudice may be known. He that is strongly of any opinion must suppose (unless he be self-condemned) that his persuasion is built upon good grounds; and that his assent is no greater than what the evidence of the truth he holds forces

him to ; and that they are arguments, and not inclination or fancy, that make him so confident and positive in his tenets. Now if, after all his profession, he cannot bear any opposition to his opinion, if he cannot so much as give a patient hearing, much less examine and weigh the arguments on the other side—does he not plainly confess it is prejudice governs him? And it is not the evidence of truth, but some lazy anticipation, some beloved presumption that he desires to rest undisturbed in. For if what he holds be, as he gives out, well fenced with evidence, and he sees it to be true, what need he fear to put it to the proof? If his opinion be settled upon a firm foundation,—if the arguments that support it and have obtained his assent be clear, good, and convincing,—why should he be shy to have it tried whether they be proof or not? He whose assent goes beyond his evidence, owes this excess of his adherence only to prejudice ; and does in effect own it, when he refuses to hear what is offered against it,—declaring thereby that it is not evidence he seeks, but the quiet enjoyment of the opinion he is fond of, with a forward condemnation of all that may stand in opposition to it, unheard and unexamined ; which, what is it but prejudice? “*Qui aequum statuerit parte inauditâ alterâ, etiam si aequum statuerit, haud aequus fuerit.*” He that would acquit himself in this case as a lover of truth, not giving way to any preoccupation or bias that may mislead him, must do two things that are not very common nor very easy.

**11. Indifferency.**—*First* he must not be in love with any opinion, or wish it to be true, till he knows it to be so, and then he will not need to wish it. For nothing that is false can deserve our good wishes, nor a desire that it should have the place and force of truth ; and yet nothing is more frequent than this. Men are fond of certain tenets upon no other evidence but respect and custom, and think they must maintain them or all is gone ; though they have never examined the ground they stand on, nor have ever made them out to themselves, or can make them out to others. We should contend earnestly for the truth, but we should first be sure that it is truth, or else we fight

against God, who is the God of truth, and do the work of the devil, who is the father and propagator of lies. And our zeal, though ever so warm, will not excuse us ; for this is plainly prejudice.

**12. Examine.**—*Secondly*, he must do that which he will find himself very averse to, as judging the thing unnecessary or himself incapable of doing it. He must try whether his principles be certainly true or not, and how far he may safely rely upon them. This, whether fewer have the heart or the skill to do, I shall not determine ; but this I am sure, this is that which every one ought to do who professes to love truth and would not impose upon himself—which is a surer way to be made a fool of than by being exposed to the sophistry of others. The disposition to put any cheat upon ourselves works constantly, and we are pleased with it, but are impatient of being bantered or misled by others. The inability I here speak of is not any natural defect that makes men incapable of examining their own principles. To such, rules of conducting their understandings are useless ; and that is the case of very few. The great number is of those whom the ill habit of never exerting their thoughts has disabled. The powers of their minds are starved by disuse, and have lost that reach and strength which nature fitted them to receive from exercise. Those who are in a condition to learn the first rules of plain arithmetic, and could be brought to cast up an ordinary sum, are capable of this, if they had but accustomed their minds to reasoning. But they that have wholly neglected the exercise of their understandings in this way, will be very far at first from being able to do it, and as unfit for it as one unpractised in figures to cast up a shopbook, and perhaps think it as strange to be set about it. And yet it must nevertheless be confessed to be a wrong use of our understanding to build our tenets (in things where we are concerned to hold the truth) upon principles that may lead us into error. We take our principles at haphazard, upon trust, and without ever having examined them ; and then believe a whole system, upon a presumption that they are true

and solid: and what is all this but childish, shameful, senseless credulity?

In these two things, *vis.*, an equal indifferency for all truth—I mean the receiving it in the love of it, as truth, but not loving it for any other reason before we know it to be true,—and in the examination of our principles, (and not receiving any for such, nor building on them till we are fully convinced as rational creatures, of their solidity, truth, and certainty,) consists that freedom of the understanding which is necessary to a rational creature, and without which it is not truly an understanding. It is conceit, fancy, extravagance, anything rather than understanding, if it must be under the constraint of receiving and holding opinions by the authority of anything but their own not (fancied, but perceived) evidence. This was rightly called imposition, and is of all other the worst and most dangerous sort of it. For we impose upon ourselves,—which is the strongest imposition of all others,—and we impose upon ourselves in that part which ought with the greatest care to be kept free from all imposition. The world is apt to cast great blame on those who have an indifferency for opinions, especially in religion. I fear this is the foundation of great error and worse consequences. To be indifferent, which of two opinions is true, is the right temper of the mind that preserves it from being imposed on, and disposes it to examine with that indifferency till it has done its best to find the truth; and this is the only direct and safe way to it. But to be indifferent whether we embrace falsehood or truth is the great road to error. Those who are not indifferent which opinion is true are guilty of this; they suppose, without examining, that what they hold is true, and then think they ought to be zealous for it. Those, it is plain by their warmth and eagerness, are not indifferent for their own opinions, but methinks are very indifferent whether they be true or false, since they cannot endure to have any doubts raised or objections made against them; and it is visible they never have made any themselves; and so, never having examined them, know not nor are concerned, as they should be

to know whether they be true or false.

These are the common and most general miscarriages which I think men should avoid or rectify in a right conduct of their understandings, and should be particularly taken care of in education. The business whereof in respect of knowledge is not, as I think, to perfect a learner in all or any one of the sciences, but to give his mind that freedom, that disposition, and those habits that may enable him to attain any part of knowledge he shall apply himself to, or stand in need of, in the future course of his life.

This, and this only is well principling, and not the instilling a reverence and veneration for certain dogmas under the specious title of principles,—which are often so remote from that truth and evidence which belongs to principles, that they ought to be rejected as false and erroneous; and often cause men so educated when they come abroad into the world, and find they cannot maintain the principles so taken up and rested in, to cast off all principles and turn perfect sceptics, regardless of knowledge and virtue.

There are several weaknesses and defects in the understanding, either from the natural temper of the mind or ill habits taken up, which hinder it in its progress to knowledge. Of these there are as many, possibly, to be found, if the mind were thoroughly studied, as there are diseases of the body, each whereof clogs and disables the understanding to some degree, and therefore deserves to be looked after and cured. I shall set down some few to excite men, especially those who make knowledge their business, to look into themselves. and observe whether they do not indulge some weaknesses, allow some miscarriages in the management of their intellectual faculty which is prejudicial to them in the search of truth.

**13. Observation.**—Particular matters of fact are the undoubted foundations on which our civil and natural knowledge is built; the benefit the understanding makes of them is to draw from them conclusions which may be as standing rules of knowledge, and consequently of practice. The mind often makes not that benefit it should, of the

information it receives from the accounts of civil or natural historians, by being too forward or too slow in making observations on the particular facts recorded in them.

There are those who are very assiduous in reading, and yet do not much advance their knowledge by it. They are delighted with the stories that are told, and perhaps can tell them again, for they make all they read nothing but history to themselves ; but not reflecting on it, not making to themselves observations from what they read, they are very little improved by all that crowd of particulars that either pass through or lodge themselves in their understandings. They dream on in a constant course of reading : and cramming themselves but not digesting anything, it produces nothing but a heap of crudities.

If their memories retain well, one may say, they have the *materials* of knowledge ; but like those for building, they are of no advantage if there be no other use made of them but to let them lie heaped up together. Opposite to these there are others, who lose the improvement they should make of matters of fact by a quite contrary conduct. They are apt to draw general conclusions, and raise axioms from every particular they meet with. These make as little true benefit of history as the other ; nay, being of forward and active spirits, receive more harm by it, it being of worse consequence to steer one's thoughts by a wrong rule than to have none at all, error doing to busy men much more harm than ignorance to the slow and sluggish. Between these, those seem to do best who taking material and useful hints, sometimes from single matters of fact, carry them in their minds to be judged of by what they shall find in history to confirm or reverse their imperfect observations ; which may be established into rules fit to be relied on when they are justified by a sufficient and wary induction of particulars. He that makes no such reflections on what he reads, only loads his mind with a rhapsody of tales, fit in winter nights for the entertainment of others ; and he that will improve every matter of fact into a maxim, will abound in contrary observations that can be of no other use but to perplex and puzzle him if he compares them, or else to misguide him



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if he gives himself up to the authority of that which for its novelty or for some other fancy best pleases him.

**14. Bias.**—Next to these we may place those who suffer their own natural tempers and passions they are possessed with, to influence their judgments, especially of men and things that may any way relate to their present circumstances and interest. Truth is all simple, all pure, will bear no mixture of anything else with it. It is rigid and inflexible to any bye-interests, and so should the understanding be, whose use and excellency lie in conforming itself to it. To think of every thing just as it is in itself, is the proper business of the understanding, though it be not that which men always employ it to. This all men at first hearing allow is the right use every one should make of his understanding. Nobody will be at such an open defiance with common sense, as to profess that we should not endeavour to know and think of things as they are in themselves, and yet there is nothing more frequent than to do the contrary; and men are apt to excuse themselves, and think they have reason to do so, if they have but a pretence that it is for God, or a good cause; that is, in effect, for themselves, their own persuasion, or party; for those in their turns the several sects of men, especially in matters of religion, entitle God and a good cause. But God requires not men to wrong or misuse their faculties for him, nor to lie to others or themselves for his sake,—which they purposely do, who will not suffer their understandings to have right conceptions of the things proposed to them, and designedly restrain themselves from having just thoughts of everything, as far as they are concerned to inquire. And as for a good cause, that needs not such ill helps; if it be good, truth will support it, and it has no need of fallacy or falsehood.

**15. Arguments.**—Very much of kin to this is the hunting after arguments to make good one side of a question, and wholly to neglect and refuse those which favour the other side. What is this but wilfully to misguide the understanding? And it is so far from giving truth its

due value, that it wholly debases it : men espouse opinions that best comfort with their power, profit, or credit, and then seek arguments to support them. Truth, lighted upon this way, is of no more avail to us than error ; for what is so taken up by us may be false as well as true, and he has not done his duty who has thus stumbled upon truth in his way to preferment.

There is another but more innocent way of collecting arguments very familiar among bookish men : which is to furnish themselves with the arguments they meet with *pro* and *con* in the questions they study. This helps them not to judge right nor argue strongly, but only to talk copiously on either side without being steady and settled in their own judgments : for such arguments gathered from other men's thoughts, floating only in the memory, are there ready indeed to supply copious talk with some appearance of reason, but are far from helping us to judge right. Such variety of arguments only distract the understanding that relies on them, unless it has gone farther than such a superficial way of examining ; this is to quit truth for appearance, only to serve our vanity. The sure and only way to get true knowledge is to form in our minds clear settled notions of things, with names annexed to those determin'd ideas. These we are to consider with their several relations and habitudes, and not amuse ourselves with floating names and words of indetermin'd signification which we can use in several senses to serve a turn. It is in the perception of the habitudes and respects our ideas have one to another, that real knowledge consists ; and when a man once perceives how far they agree or disagree one with another, he will be able to judge of what other people say, and will not need to be led by the arguments of others, which are many of them nothing but plausible sophistry. This will teach him to state the question right, and see whereon it turns ; and thus he will stand upon his own legs, and know by his own understanding. Whereas by collecting and learning arguments by heart, he will be but a ratainer to others ; and when any one questions the foundations they are built upon, he will be at a nonplus, and be fain to give up his implicit knowledge.

**16. Haste.**—Labour for labour-sake is against nature. The understanding, as well as all the other faculties, chooses always the shortest way to its end, would presently obtain the knowledge it is about, and then set upon some new inquiry. But this, whether laziness or haste, often misleads it and makes it content itself with improper ways of search, and such as will not serve the turn: sometimes it rests upon testimony, when testimony of right has nothing to do; because it is easier to believe than to be scientifically instructed: sometimes it contents itself with one argument, and rests satisfied with that, as it were a demonstration, whereas the thing under proof is not capable of demonstration, and therefore must be submitted to the trial of probabilities, and all the material arguments *pro* and *con* be examined and brought to a balance. In some cases the mind is determined by probable topics in inquiries where demonstration may be had. All these, and several others, which laziness, impatience, custom, and want of use and attention lead men into, are misapplications of the understanding in the search of truth. In every question, the nature and manner of the proof it is capable of should be considered, to make our inquiry such as it should be. This would save a great deal of frequently misemployed pains, and lead us sooner to that discovery and possession of truth we are capable of. The multiplying variety of arguments,—especially frivolous ones, such as are all that are merely verbal,—is not only lost labour, but cumpers the memory to no purpose, and serves only to hinder it from seizing and holding of the truth in all those cases which are capable of demonstration. In such a way of proof, the truth and certainty is seen, and the mind fully possesses itself of it, when in the other way of assent, it only hovers about it, is amused with uncertainties. In this superficial way, indeed, the mind is capable of more variety of plausible talk, but is not enlarged as it should be, in its knowledge. It is to this same haste and impatience of the mind also, that a not due tracing of the arguments to their true foundation is owing; men see a little, presume a great deal, and so jump to the conclusion. This is a short way to fancy and conceit, and (if firmly

embraced) to opiniatry, but is certainly the farthest way about to knowledge. For he that will know, must by the connection of the proofs see the truth and the ground it stands on ; and therefore if he has for haste skipt over what he should have examined, he must begin and go over all again, or else he will never come to knowledge.

**17. Desultory.**—Another fault of as ill consequence as this, which proceeds also from laziness, with a mixture of vanity, is the skipping from one sort of knowledge to another. Some men's tempers are quickly weary of any one thing. Constancy and assiduity is what they cannot bear : the same study long continued in is as intolerable to them, as the appearing long in the same clothes or fashion is to a court-lady.

**18. Smattering.**—Others, that they may seem universally knowing, get a little smattering in everything. Both these may fill their heads with superficial notions of things but are very much out of the way of attaining truth or knowledge.

**19. Universality.**—I do not here speak against the taking a taste of every sort of knowledge ; it is certainly, very useful and necessary to form the mind ; but then it must be done in a different way and to a different end. Not for talk and vanity to fill the head with shreds of all kinds, that he who is possessed of such a frippery, may be able to match the discourses of all he shall meet with, as if nothing could come amiss to him, and his head was so well stored a magazine that nothing could be proposed which he was not master of, and was readily furnished to entertain any one on. This is an excellency indeed, and a great one too, to have a real and true knowledge in all or most of the objects of contemplation. But it is what the mind of one and the same man can hardly attain unto, and the instances are so few of those who have in any measure approached towards it that I know not whether they are to be proposed as examples in the ordinary conduct of the understanding. For a man to understand fully the business

of his particular calling in the commonwealth, and of religion, which is his calling as he is a man in the world is usually enough to take up his whole time ; and there are few that inform themselves in these, which is every man's proper and peculiar business, so to the bottom as they should do. But though this be so, and there are very few men that extend their thoughts towards universal knowledge, yet I do not doubt but if the right way were taken, and the methods of inquiry were ordered as they should be, men of little business and great leisure might go a great deal farther in it than is usually done.

To return to the business in hand, the end and use of a little insight in those parts of knowledge which are not a man's proper business, is to accustom our minds to all sorts of ideas and the proper ways of examining their habitudes and relations. This gives the mind a freedom, and the exercising the understanding in the several ways of inquiry and reasoning which the most skilful have made use of, teaches the mind sagacity and wariness, and a suppleness to apply itself more closely and dexterously to the bents and turns of the matter in all its researches. Besides, this universal taste of all the sciences, with an indifferency before the mind is possessed with any one in particular, and grown into love and admiration of what is made its darling, will prevent another evil very commonly to be observed in those who have from the beginning been seasoned only by one part of knowledge. Let a man be given up to the contemplation of one sort of knowledge, and that will become everything. The mind will take such a tincture from a familiarity with what object, that everything else, how remote soever, will be brought under the same view. A metaphysician will bring ploughing and gardening immediately to abstract notions ; the history of nature shall signify nothing to him. An alchemist, on the contrary, shall reduce divinity to the maxims of his laboratory : explain morality by sal, sulphur, and mercury and allegorise the scripture itself, and the sacred mysteries thereof, into the philosopher's stone. And I heard once a man, who had a more than ordinary excellency in music, seriously accommodate Mose's seven days of the first week to the notes of music, as if from thence had been taken

the measure and method of the creation. It is of no small consequence to keep the mind from such a possession, which I think is best done by giving it a fair and equal view of the whole intellectual world, wherein it may see the order, rank, and beauty of the whole, and give a just allowance to the distinct provinces of the several sciences in the due order and usefulness of each of them.

If this be that which old men will not think necessary, nor be easily brought to, it is fit at least that it should be practised in the breeding of the young. The business of education, as I have already observed, is not, as I think to make them perfect in any one of the sciences, but so to open and dispose their minds as may best make them capable of any when they shall apply themselves to it. If men are for a long time accustomed only to one sort or method of thoughts, their minds grow stiff in it, and do not readily turn to another. It is therefore to give them this freedom, that I think they should be made to look into all sorts of knowledge, and exercise their understandings in so wide a variety and stock of knowledge. But I do not suppose it is a variety and stock of knowledge but a variety and freedom of thinking, as an increase of the powers and activity of the mind, not as an enlargement of its possessions.

**20. Reading.**—This is that which I think great readers are apt to be mistaken in. Those who have read of everything are thought to understand everything too ; but it is not always so. Reading furnishes the mind only with materials of knowledge, it is thinking makes what we read ours. We are of the ruminating kind, and it is not enough to cram ourselves with a great load of collections ; unless we chew them over again they will not give us strength and nourishment. There are indeed in some writers visible instances of deep thoughts, close and acute reasoning, ideas well pursued. The light these would give would be of great use, if their readers would observe and imitate them ; all the rest at best are but particulars fit to be turned into knowledge. But that can be done only by own meditation and examining the reach, force,

and coherence of what is said ; and then as far as we apprehend and see the connection of ideas, so far it is ours ; without that it is but so much loose matter floating in our brain. The memory may be stored, but the judgment is little better, and the stock of knowledge not increased, by being able to repeat what others have said or produce the arguments we have found in them. Such a knowledge as this is but knowledge by hearsay, and the ostentation of it is at best but talking by rote, and very often upon weak and wrong principles. For all that is to be found in books is not built upon true foundations, nor always rightly deduced from the principles it is pretended to be built on. Such an examen as is requisite to discover, that every reader's mind is not forward to make, especially in those who have given themselves up to a party, and only hunt for what they can scrape together that may favour and support the tenets of it. Such men willfully exclude themselves from truth and from all true benefit to be received by reading. Others of more indifferency often want attention and industry. The mind is backward in itself to be at the pains to trace every argument to its original, and to see upon what basis it stands, and how firmly ; but yet it is this that gives so much the advantage to one man more than another in reading. The mind should by severe rules, be tied down to this, at first, uneasy task ; use and exercise will give it facility. So that those who are accustomed to it readily, as it were with one cast of the eye, take a view of the argument, and presently, in most cases, see where it bottoms. Those who have got this faculty, one may say, have got the true key of books, and the clue to lead them through the mizmaze of a variety of opinions and authors to truth and certainty. This young beginners should be entered in, and showed the use of, that they might profit by their reading. Those who are strangers to it will be apt to think it too great a clog in the way of men's studies ; and they will suspect they shall make but small progress if in the books they read, they must stand to examine and unravel every argument and follow it step by step up to its original.

I answer, this is a good objection, and ought to weigh

with those whose reading is designed for much talk and little knowledge, and I have nothing to say to it. But I am here inquiring into the conduct of the understanding in its progress towards knowledge; and to those who aim at that, I may say, that he who fair and softly goes steadily forward in a course that points right, will sooner be at his journey's end, than he that runs after every one he meets, though he gallop all day full speed.

To which let me add, that this way of thinking on and profiting by what we read will be a clog and rub to any one only in the beginning: when custom and exercise has made it familiar, it will be despatched on most occasions, without resting or interruption in the course of our reading. The motions and views of a mind exercised that way are wonderfully quick; and a man, used to such sort of reflections sees as much at one glimpse as would require a long discourse to lay before another, and make out in an entire and gradual deduction. Besides that, when the first difficulties are over, the delight and sensible advantage it brings mightily encourages and enlivens the mind in reading, which without this is very improperly called study.

**21. Intermediate principles.**—As a help to this, I think it may be proposed, that for the saving the long progression of the thoughts to remote and first principles in every case, the mind should provide itself several stages; that is to say, intermediate principles which it might have recourse to in the examining those positions that come in its way. These, though they are not self-evident principles, yet if they have been made out from them by a wary and unquestionable deduction, may be depended on as certain and infallible truths, and serve as unquestionable truths to prove other points depending on them by a nearer and shorter view than remote and general maxims. These may serve as landmarks to show what lies in the direct way of truth, or is quite beside it. And thus mathematicians do, who do not in every new problem run it back to the first axioms, through all the whole train of intermediate propositions. Certain theorems that they have settled to themselves upon sure demonstration, serve to resolve



to them multitudes of propositions which depend on them, and are as firmly made out from thence as if the mind went afresh over every link of the whole chain that ties them to first self-evident principles. Only in other sciences great care is to be taken that they establish those intermediate principles with as much caution, exactness, and indifference, as mathematicians use in the settling any of their great theorems. When this is not done, but men take up the principles in this or that science upon credit, inclination, interest, &c., in haste, without due examination and most unquestionable proof, they lay a trap for themselves, and as much as in them lies, captivate their understandings to mistake, falsehood, and error.

**22. Partiality.**—As there is a partiality to opinions, which, as we have already observed, is apt to mislead the understanding, so there is often a partiality to studies which is prejudicial also to knowledge and improvement. Those sciences which men are particularly versed in they are apt to value and extol, as if that part of knowledge which every one has acquainted himself with, were that alone which was worth the having, and all the rest were idle and empty amusements, comparatively of no use or importance. This is the effect of ignorance and not knowledge, the being vainly puffed up with a flatulency arising from a weak and narrow comprehension. It is not amiss that every one should relish the science that he has made his peculiar study; a view of its beauties and a sense of its usefulness carries a man on with the more delight and warmth in the pursuit and improvement of it. But the contempt of all other knowledge, as if it were nothing in comparison of Law or Physic, of Astronomy or Chemistry, —or perhaps some yet meaner part of knowledge, wherein I have got some smattering, or am somewhat advanced,—is not only the mark of a vain or little mind, but does this prejudice in the conduct of the understanding, that it coops it up within narrow bounds, and hinders it looking abroad into other provinces of the intellectual world, —more beautiful possibly, and more fruitful than that which it had till then laboured in; wherein it might find,

besides new knowledge, ways or hints whereby it might be enabled the better to cultivate its own.

**23. Theology.**—There is indeed one science (as they are now distinguished) incomparably above all the rest, where it is not by corruption narrowed into a trade or faction for mean or ill ends and secular interests ; I mean theology, which, containing the knowledge of God and his creatures, our duty to him and our fellow-creatures, and a view of our present and future state,—is the comprehension of all other knowledge directed to its true end ; *i. e.* the honour and veneration of the Creator and the happiness of mankind. This is that noble study which is every man's duty, and every one that can be called a rational creature is capable of. The works of nature and the words of revelation display it to mankind in characters so large and visible, that those who are not quite blind may in them read and see the first principles and most necessary parts of it, and from thence, as they have time and industry, may be enabled to go on to the more abstruse parts of it, and penetrate into those infinite depths filled with the treasures of wisdom and knowledge. This is that science which would truly enlarge men's minds were it studied or permitted to be studied everywhere with that freedom, love of truth and charity, which it teaches ; and were not made, contrary to its nature, the occasion of strife, faction, malignity, and narrow impositions. I shall say no more here of this, but that it is undoubtedly a wrong use of my understanding to make in the rule and measure of another man's ; a use which it is neither fit for, nor capable of.

**24. Partiality.**—This partiality, where it is not permitted an authority to render all other studies insignificant or contemptible, is often indulged so far as to be relied upon and made use of in other parts of knowledge to which it does not at all belong, and wherewith it has no manner of affinity. Some men have so used their heads to mathematical figures that giving a preference to the methods of that science, they introduce lines and diagrams into their study of divinity or politic inquiries, as if nothing

could be known without them ; and others, accustomed to retired speculations, run natural philosophy into metaphysical notions and the abstract generalities of logic : and how often may one meet with religion and morality treated of in the terms of the laboratory, and thought to be improved by the methods and notions of chemistry. But he that will take care of the conduct of his understanding, to direct it right to the knowledge of things, must avoid those undue mixtures, and not—by a fondness for what he has found useful and necessary in one,—transfer it to another science, where it serves only to perplex and confound the understanding. It is a certain truth that “*res nolunt male administrari*” ; it is no less certain, “*res nolunt male intelligi*.” Things themselves are to be considered as they are in themselves, and then they will show us in what way they are to be understood. For to have right conceptions about them we must bring our understandings to the inflexible nature and unalterable relations of things, and not endeavour to bring things to any preconceived notions of our own.

There is another partiality very commonly observable in men of study, no less prejudicial nor ridiculous than the former, and that is a fantastical and wild attributing all knowledge to the ancients alone, or to the moderns. This raving upon antiquity in matter of poetry, Horace has wittily described and exposed in one of his satires. The same sort of madness may be found in reference to all the other sciences. Some will not admit an opinion not authorised by men of old, who were then all giants in knowledge : nothing is to be put into the treasury of truth or knowledge, which has not the stamp of Greece or Rome upon it ; and since their days will scarce allow that men have been able to see, think, or write. Others, with a like extravagancy, condemn all that the ancients have left us, and, being taken with the modern inventions and discoveries, lay by all that went before ; as if whatever is called old must have the decay of time upon it, and truth too were liable to mould and rottenness. Men I think have been much the same for natural endowments in all times. Fashion, discipline, and education have put eminent differences in the ages of

several countries : and made one generation much differ from another in arts and sciences. But truth is always the same ; time alters it not, nor is it the better or worse for being of ancient or modern tradition. Many were eminent in former ages of the world for their discovery and delivery of it ; but though the knowledge they have left us be worth our study, yet they exhausted not all its treasure ; they left a great deal for the industry and sagacity of after ages, and so shall we. That was once new to them which any one now receives with veneration for its antiquity, nor was it the worse for appearing as a novelty ; and that which is now embraced for its newness will, to posterity, be old, but not thereby be less true or less genuine. There is no occasion on this account to oppose the ancients and the moderns to one another, or to be squeamish on either side. He that wisely conducts his mind in the pursuit of knowledge will gather what lights, and get what helps he can, from either of them from whom they are best to be had, without adoring the errors or rejecting the truths which he may find mingled in them.

Another partiality may be observed, in some to vulgar, in others to heterodox tenets ; some are apt to conclude that what is the common opinion cannot but be true ; so many men's eyes they think cannot but see right ; so many men's understandings of all sorts cannot be deceived, and therefore will not venture to look beyond the received notions of the place and age, nor have so presumptuous a thought as to be wiser than their neighbours. They are content to go with the crowd, and so go easily, which they think is going right, or at least serves them as well. But however "*Vox populi vox Dei*" has prevailed as a maxim, yet I do not remember wherever God delivered his oracles by the multitude, or Nature truths by the herd. On the other side, some fly all common opinions as either false or frivolous. The title of 'many-headed' beast is a sufficient reason to them to conclude that no truths of weight or consequence can be lodged there. Vulgar opinions are suited to vulgar capacities, and adapted to the ends of those that govern. He that will know the truth of things must leave the common and beaten track,

which none but weak and servile minds are satisfied to trudge along continually in. Such nice palates relish nothing but strange notions quite out of the way: whatever is commonly received has the mark of the beast on it, and they think it a lessening to them to hearken to it or receive it: their mind runs only after paradoxes; these they seek, these they embrace, these alone they vent, and so (as they think) distinguish themselves from the vulgar. But common or uncommon are not the marks to distinguish truth or falsehood, and therefore should not be any bias to us in our inquiries. We should not judge of things by men's opinions, but of opinions by things. The multitude reason but ill, and therefore may be well suspected, and cannot be relied on, nor should be followed as a sure guide; but philosophers who have quitted the orthodoxy of the community, and the popular doctrines of their countries, have fallen into as extravagant and as absurd opinions as ever common reception countenanced. It would be madness to refuse to breathe the common air, or quench one's thirst with water because the rabble use them to these purposes; and, if there are conveniences of life which common use reaches not, it is not reason to reject them, because they are not grown into the ordinary fashion of the country, and every villager doth not know them.

Truth, whether in or out of fashion, is the measure of knowledge, and the business of the understanding; whatsoever is besides that, however authorized by consent or recommended by rarity, is nothing but ignorance, or something worse.

Another sort of partiality there is whereby men impose upon themselves, and by it make their reading little useful to themselves—I mean the making use of the opinions of writers, and laying stress upon their authorities wherever they find them to favour their own opinions.

There is nothing almost has done more harm to men dedicated to letters than giving the name of study to reading, and making a man of great reading to be the same with a man of great knowledge, or at least to be a title of honour. All that can be recorded in writing are

only facts or reasonings. *Facts* are of three sorts :

1. Merely of natural agents, observable in the ordinary operations of bodies one upon another, whether in the visible course of things left to themselves, or in experiments made by men applying agents and patients to one another after a peculiar and artificial manner.

2. Of voluntary agents, more especially the actions of men in society, which makes civil and moral history.

3. Of opinions.

In these three consists, as it seems to me, that which commonly has the name of learning ; to which perhaps some may add a distinct head of critical writings, which indeed at bottom is nothing but matter of fact, and resolves itself into this, that such a man, or set of men used such a word or phrase in such a sense.—i. e. that they made such sounds the marks of such ideas.

Under *reasonings* I comprehend all the discoveries of general truths made by human reason, whether found by intuition, demonstration, or probable deductions. And this is that which is, if not alone knowledge, (because the truth or probability of particular propositions may be known too), yet is, as may be supposed, most properly the business of those who pretend to improve their understanding and make themselves knowing by reading.

Books and reading are looked upon to be the great helps of the understanding and instruments of knowledge, as it must be allowed that they are ; and yet I beg leave to question whether these do not prove a hindrance to many, and keep several bookish men from attaining to solid and true knowledge. This, I think, I may be permitted to say, that there is no part wherein the understanding needs a more careful and wary conduct than in the use of books, without which they will prove rather innocent amusements than profitable employments of our time, and bring but small additions to our knowledge.

There is not seldom to be found, even amongst those who aim at knowledge, who with an unwearied industry employ their whole time in books, who scarcely allow themselves time to eat or sleep, but read, and read, and read on, yet make no great advances in real knowledge ; though

there be no defect in their intellectual faculties, to which their little progress can be imputed. The mistake here is, that it is usually supposed that by reading, the author's knowledge is transfused into the reader's understanding ; and so it is, but not by bare reading, but by reading and understanding what he wrote. Whereby I mean, not barely comprehending what is affirmed or denied in each proposition (though that great readers do not always think themselves concerned precisely to do) ; but to see and follow the train of his reasonings, observe the strength and clearness of their connexion, and examine upon what they bottom. Without this a man may read the discourses of a very rational author, written in a language and in propositions that he very well understands, and yet acquire not one jot of his knowledge ; which consisting only in the perceived, certain, or probable connexion of the ideas made use of in his reasonings, the reader's knowledge is no further increased than he perceives that ; so much as he sees of this connexion, so much he knows of the truth or probability of that author's opinions.

All that he relies on without this perception, he takes upon trust, upon the author's credit, without any knowledge of it at all. This makes me not at all wonder to see some men so abound in citations and build so much upon authorities,—it being the sole foundation on which they bottom most of their own tenets ; so that in effect they have but a second-hand or implicit knowledge ; i. e. are in the right if such an one from whom they borrowed it were in the right in that opinion which they took from him,—which indeed is no knowledge at all. Writers of this or former ages may be good witnesses of matters of fact which they deliver, which we may do well to take upon their authority ; but their credit can go no further than this ; it cannot at all affect the truth and falsehood of opinions which have no other sort of trial but reason and proof, which they themselves made use of to make themselves knowing, and so must others too that will partake in their knowledge. Indeed it is an advantage that they have been at the pains to find out the proofs and lay them in that order that may show the truth or probability of their conclusions, and for

this we owe them great acknowledgments for saving us the pains in searching out those proofs which they have collected for us, and which possibly, after all our pains, we might not have found nor been able to have set them in so good a light as that which they left them us in. Upon this account we are mightily beholden to judicious writers of all ages for those discoveries and discourses they have left behind them for our instruction if we know how to make a right use of them ; which is not to run them over in a hasty perusal, and perhaps lodge their opinions or some remarkable passages in our memories, but to enter into their reasoning, examine their proofs, and then judge of the truth or falsehood, probability or improbability of what they advance,—not by any opinion we have entertained of the author, but by the evidence he produces and the conviction he affords us drawn from things themselves. Knowing is seeing ; and if it be so, it is madness to persuade ourselves that we do so by another man's eyes, let him use ever so many words to tell us that what he asserts is very visible. Till we ourselves see it with our own eyes, and perceive it by our own understandings, we are as much in the dark and as void of knowledge as before, let us believe any learned author as much as we will.

Euclid and Archimedes are allowed to be knowing and to have demonstrated what they say, and yet whoever shall read over their writings without perceiving the connexion of their proofs, and seeing what they shew, though he may understand all their words, yet he is not the more knowing : he may believe indeed, but does not know what they say, and so is not advanced one jot in mathematical knowledge by all his reading of those approved mathematicians.

**25. Haste.**—The eagerness and strong bent of the mind after knowledge, if not warily regulated, is often a hindrance to it. It still presses into further discoveries and new objects, and catches at the variety of knowledge, and therefore often stays not long enough on what is before it to look into it as it should, for haste to pursue what is yet out of sight. He that rides post through a country may be



able from the transient view to tell how in general the parts lie, and may be able to give some loose description of here a mountain and there a plain, here a morass and there a river, woodland in one part and savannahs in another. Such superficial ideas and observations as these he may collect in galloping over it; but the more useful observations of the soil, plants, animals, and inhabitants, with their several sorts and properties, must necessarily escape him; and it is seldom men ever discover the rich mines without some digging. Nature commonly lodges her treasure and jewels in rocky ground. If the matter be knotty, and the sense lies deep, the mind must stop and buckle to it, and stick upon it with labour and thought and close contemplation, and not leave it till it has mastered the difficulty, and got possession of truth. But here care must be taken to avoid the other extreme; a man must not stick at every useless nicety, and expect mysteries of science in every trivial question or scruple that he may raise. He that will stand to pick up and examine every pebble that comes in his way, is as unlikely to return enriched and laden with jewels as the other that travelled full speed. Truths are not the better nor the worse for their obviousness or difficulty, but their value is to be measured by their usefulness and tendency. Insignificant observations should not take up any of our minutes; and those that enlarge our view and give light towards further and useful discoveries, should not be neglected, though they stop our course and spend some of our time in a fixed attention.

There is another haste that does often and will mislead the mind, if it be left to itself and its own conduct. The understanding is naturally forward, not only to learn its knowledge by variety (which makes it skip over one to get speedily to another part of knowledge), but also eager to enlarge its views by running too fast into general observations and conclusions, without a due examination of particulars enough whereon to found those general axioms. This seems to enlarge their stock, but it is of fancies, not realities; such theories built upon narrow foundations, stand but weakly; and if they fall not of themselves, are at least very hardly to be supported against the assaults of opposition.

And thus men being too hasty to erect to themselves general notions and ill-grounded theories, find themselves deceived in their stock of knowledge when they come to examine their hastily assumed maxims themselves or to have them attacked by others. General observations drawn from particulars are the jewels of knowledge, comprehending great store in a little room.; but they are therefore to be made with the greater care and caution,—lest if we take counterfeit for true, our loss and shame be the greater when our stock comes to a severe security. One or two particulars may suggest hints of inquiry, and they do well who take those hints ; but if they turn them into conclusions, and make them presently general rules, they are forward indeed, but it is only to impose on themselves by propositions assumed for truths without sufficient warrant. To make such observations is, as has been already remarked, to make the head a magazine of materials which can hardly be called knowledge ; or at least it is but like a collection of lumber not reduced to use or order. And he that makes everything an observation has the same useless plenty and much more falsehood mixed with it. The extremes on both sides are to be avoided, and he will be able to give the best account of his studies who keeps his understanding in the right mean between them.

**26. Anticipation.**—Whether it be a love of that which brings the first light and information to their minds, and want of vigour and industry to inquire ; or else that men content themselves with any appearance of knowledge, right or wrong, which when they have once got they will hold fast : this is visible, that many men give themselves up to the first anticipations of their minds, and are very tenacious of the opinions that first possess them ; they are often as fond of their first-born, and will by no means recede from the judgment they have once made, or any conjecture or conceit which they have once entertained. This is a fault in the conduct of the understanding, since this firmness or rather stiffness of the mind is not from an adherence to truth, but submission to prejudice. It is an unreasonable homage paid to prepossession, whereby we show a reverence

not to (what we pretend to seek) truth ; but what by hazard we chance to light on, be it what it will.' This is visibly a preposterous use of our faculties, and is a downright prostituting of the mind to resign it thus, and put it under the power of the first comer. This can never be allowed or ought to be followed as a right way to knowledge till the understanding (whose business it is to conform itself to what it finds on the objects without) can by its own opiniatry change that, and make the unalterable nature of things comply with its own hasty determinations, which will never be. Whatever we fancy, things keep their course, and their habitudes, correspondences, and relations keep the same to one another.

**27. Resignation.**—Contrary to these, but by a like dangerous excess on the otherside, are those who always resign their judgment to the last man they heard or read. Truth never sinks into these men's minds nor gives any tincture to them, but, chameleon-like, they take the colour of what is laid before them, and as soon lose and resign it to the next that happens to come in their way. The order wherein opinions are proposed or received by us is no rule of their rectitude, nor ought to be a cause of their preference. First or last in this case is the effect of chance, and not the measure of truth or falsehood. This every one must confess, and therefore should, in the pursuit of truth, keep his mind free from the influence of any such accidents. A man may as reasonably draw cuts for his tenets, regulate his persuasion by the cast of a die, as take it up for its novelty, or retain it because it had his first assent and he was never of another mind. Well-weighed reasons are to determine the judgment ; those the mind should be always ready to hearken and submit to, and by their testimony and suffrage entertain or reject any tenet indifferently, whether it be a perfect stranger or an old acquaintance.

**28. Practice.**—Though the faculties of the mind are improved by exercise, yet they must not be put to a stress beyond their strength. "Quid valeant humeri, quid ferre

recusent," must be made the measure of every one's understanding, who has a desire not only to perform well, but to keep up the vigour of his faculties, and not to balk his understanding by what is too hard for it. The mind by being engaged in a task beyond its strength, like the body strained by lifting at a weight too heavy, has often its force broken, and thereby gets an unaptness or an aversion to any vigorous attempt ever after. A sinew cracked seldom recovers its former strength ; or at least the tenderness of the sprain remains a good while after, and the memory of it longer, and leaves a lasting caution in the man not to put the part quickly again to any robust employment. So it fares in the mind once jaded by an attempt above its power ; it either is disabled for the future, or else checks at any vigorous undertaking ever after ; at least is very hardly brought to exert its force again on any subject that requires thought and meditation. The understanding should be brought to the difficult and knotty parts of knowledge that try the strength of thought and a full bent of the mind, by insensible degrees ; and in such a gradual proceeding nothing is too hard for it. Nor let it be objected that such a slow progress will never reach the extent of some sciences. It is not to be imagined how far constancy will carry a man ; however, it is better walking slowly in a rugged way than to break a leg and be a cripple. He that begins with the calf may carry the ox, but he that will at first go to take up an ox may so disable himself as not to be able to lift up a calf after that. When the mind by insensible degrees has brought itself to attention and close thinking, it will be able to cope with difficulties and master them without any prejudices to itself, and then it may go on roundly. Every abstruse problem, every intricate question will not baffle, discourage, or break it. But though putting the mind unprepared upon an unusual stress that may discourage or damp it for the future ought to be avoided ; yet this must not run it, by an overgreat shyness of difficulties, into a lazy sauntering about ordinary and obvious things that demand no thought or application. This debases and enervates the understanding, makes it weak and unfit for labour. This is a sort

of hovering about the surface of things, without any insight into them or penetration ; and when the mind has been once habituated to this lazy recumbency and satisfaction on the obvious surface of things, it is in danger to rest satisfied there and go no deeper, since it cannot do it without pains and digging. He that has for some time accustomed himself to take up with what easily offers itself at first view, has reason to fear he shall never reconcile himself to the fatigue of turning and tumbling things in his mind to discover their more retired and more valuable secrets.

It is not strange that methods of learning which scholars have been accustomed to in their beginning and entrance upon the sciences should influence them all their lives, and be settled in their minds by an overruling reverence ; especially if they be such as universal use has established. Learners must at first be believers ; and, their master's rules having been once made axioms to them, is it no wonder they should keep that dignity, and by the authority they have once got, mislead those who think it sufficient to excuse them if they go out of their way in a well-beaten track.

**29. Words.**—I have copiously enough spoken of the abuse of words in another place ; and therefore shall upon this reflection, that the sciences are full of them,—warn those that would conduct their understandings right, not to take any term, howsoever authorized by the language of the schools, to stand for anything till they have an idea of it. A word may be of frequent use and great credit with several authors, and be by them made use of, as if it stood for some real being, but yet if he that reads cannot frame any distinct idea of that being, it is certainly to him a mere empty sound without a meaning, and he learns no more by all that is said of it or attributed to it, than if it were affirmed only of that bare empty sound. They who would advance in knowledge, and not deceive and swell themselves with a little articulated air, should lay down this as a fundamental rule : not to take words for things, nor suppose that names in books signify real

entities in nature, till they can frame clear and distinct ideas of those entities. It will not perhaps be allowed if I should set down *substantial forms* and *intentional species*, as such that may justly be suspected to be of this kind of insignificant terms. But this I am sure, to one that can form no determined ideas of what they stand for, they signify nothing at all; and all that he thinks he knows about them is to him so much knowledge about nothing, and amounts at most but to a learned ignorance. It is not without all reason supposed that there are many such empty terms to be found in some learned writers, to which they had recourse to etch out their systems, where their understandings could not furnish them with conceptions from things. But yet I believe the supposing of some realities in nature answering those and the like words, have much perplexed some and quite misled others in the study of nature. That which in any discourse signifies, *I know not what*, should be considered *I know not when*. Where men have any conceptions, they can, if they are ever so abstruse or abstracted, explain them, and the terms they use for them. For our conception being nothing but ideas, which are all made up of simple ones, if they cannot give us the ideas their words stand for, it is plain they have none. To what purpose can it be to hunt after his conceptions who has none, or none distinct? He that knew not what he himself meant by a learned term, cannot make us know any thing by his use of it, let us beat our heads about it ever so long. Whether we are able to comprehend all the operations of nature and the manners of them, it matters not to inquire, but this is certain, that we can comprehend no more of them than we can distinctly conceive, and therefore to obtrude terms where we have no distinct conceptions, as if they did contain or rather conceal something, is but an artifice of learned vanity to cover a defect in an hypothesis or our understandings. Words are not made to conceal, but to declare and show something; where they are (by those who pretend to instruct) otherwise used, they conceal indeed something; but that that they conceal is nothing but the ignorance, error, or sophistry of the talker, for there is in truth nothing else under them.

**30. Wandering.**—That there is a constant succession and flux of ideas in our minds I have observed in the former part of this essay, and every one may take notice of it in himself. This, I suppose, may deserve some part of our care in the conduct of our understandings; and I think it may be of great advantage if we can by use get that power over our minds, as to be able to direct that train of ideas, that so, since there will new ones perpetually come into our thoughts by a constant succession, we may be able by choice so to direct them, that none may come in view, but such as are pertinent to our present inquiry, and in such order as may be most useful to the discovery we are upon. Or at least, if some foreign and unsought ideas will offer themselves, that yet we might be able to reject them, and keep them from taking off our minds from its present pursuit, and hinder them from running away with our thoughts quite from the subject in hand. This is not, I suspect, so easy to be done as perhaps may be imagined; and yet, for aught I know, this may be, if not the chief, yet one of the great differences that carry some men in their reasoning so far beyond others, where they seem to be naturally of equal parts. A proper and effectual remedy for this wandering of thoughts I would be glad to find. He that shall propose such an one would do great service to the studious and contemplative part of mankind, and perhaps help unthinking men to become thinking. I must acknowledge that hitherto I have discovered no other way to keep our thoughts close to their business, but the endeavouring as much as we can, and by frequent attention and application, getting the habit of attention and application. He that will observe children will find that even when they endeavour their uttermost, they cannot keep their minds from straggling. The way to cure it, I am satisfied, is not angry chiding or beating, for that presently fills their heads with all the ideas that fear, dread, or confusion can offer to them. To bring back gently their wandering thoughts, by leading them into the path and going before them in the train they should pursue, without any rebuke, or so much as taking notice (where it can be avoided) of their roving, I suppose, would sooner reconcile and inure them to atten-

tion than all these rougher methods which more distract their thought, and hindering the application they would promote, introduce a contrary habit.

**31. Distinction.**—Distinction and division are (if I mistake not the import of the words) very different things; the one being the perception of a difference that nature has placed in things; the other, our making a division where there is yet none. At least if it may be permitted to consider them in this sense, I think I may say of them, that one of them is the most necessary and conducive to true knowledge that can be; the other, when too much made use of, serves only to puzzle and confound the understanding. To observe every the least difference that is in things argues a quick and clear sight, and this keeps the understanding steady and right in its way to knowledge. But though it be useful to discern every variety that is to be found in nature, yet it is not convenient to consider every difference that is in things, and divide them into distinct classes under every such difference. This will run us, if followed, into particulars, (for every individual has something that differences it from another), and we shall be able to establish no general truths, or else at least shall be apt to perplex the mind about them. The collection of several things into several classes gives the mind more general and larger views, but we must take care to unite them only in that, and so far as they do agree, for so far they may be united under the consideration; for entity itself, that comprehends all things, as general as it is, may afford us clear and rational conceptions. If we would well weigh and keep in our minds what it is we are considering, that would best instruct us when we should or should not branch into farther distinctions, which are to be taken only from a due contemplation of things,—to which there is nothing more opposite than the art of verbal distinctions made at pleasure in learned and arbitrarily invented terms, to be applied at a venture, without comprehending or conveying any distinct notions, and so altogether fitted to artificial talk or empty noise in dispute, without any clearing of difficulties or advance in knowledge.



Whatsoever subject we examine and would get knowledge in, we should, I think, make as general and as large as it will bear ; nor can there be any danger of this, if the idea of it be settled and determined : for if that be so, we shall easily distinguish it from any other idea, though comprehended under the same name. For it is to fence against the entanglements of equivocal words, and the great art of sophistry which lies in them, that distinctions have been multiplied and their use thought necessary. But had every distinct abstract idea a distinct known name, there would be little need of these multiplied scholastic distinctions, though there would be nevertheless as much need still of the mind's observing the differences that are in things, and discriminating them thereby one from another. It is not therefore the right way to knowledge, to hunt after, and fill the head with, abundance of artificial and scholastic distinctions, wherewith learned men's writings are often filled : and we sometimes find what they treat of so divided and subdivided that the mind of the most attentive reader loses the sight of it, as it is more than probable the writer himself did ; for in things crumbled into dust it is in vain to affect or pretend order, or expect clearness. To avoid confusion by too few or too many divisions, is a great skill in thinking as well as writing,—which is but the copying our thoughts ; but what are the boundaries of the mean between the two vicious excesses on both hands, I think is hard to set down in words : clear and distinct ideas is all that I yet know able to regulate it. But as to verbal distinctions received and applied to common terms, i. e. equivocal words, they are more properly, I think, the business of criticism and dictionaries than of real knowledge and philosophy ; since they for the most part explain the meaning of words, and give us their several significations.

The dexterous management of terms, and being able to *find* and *prove* with them, I know has and does pass in the world for a great part of learning ; but it is learning distinct from knowledge. For knowledge consists only in perceiving the habitudes and relations of ideas one to another, which is done without words ; the intervention of a sound helps nothing to it. And hence we see that

there is least use of distinctions where there is most knowledge,—I mean in mathematics, where men have determined ideas with known names to them, and so there being no room for equivocations, there is no need of distinctions. In arguing, the opponent uses as comprehensive and equivocal terms as he can, to involve his adversary in the doubtfulness of his expressions : this is expected, and therefore the answer on his side makes it his play to distinguish as much as he can, and thinks he can never do it too much ; nor can he indeed, in that way wherein victory may be had without truth and without knowledge. This seems to me to be the art of disputing. Use your words as captiously as you can in your arguing on one side, and apply distinctions as much as you can on the other side, to every term, to nonplus your opponent ; so that in this sort of scholarship, there being no bounds set to distinguishing, some men have thought all acuteness to have lain in it, and therefore in all they have read or thought on, their great business has been to amuse themselves with distinctions, and multiply to themselves divisions ; at least, more than the nature of the thing required. There seems to me, as I said, to be no other rule for this but a due and a right consideration of things as they are in themselves. He that has settled in his mind determined ideas, with names affixed to them, will be able both to discern their differences one from another, which is really distinguishing ; and where the penury of words affords not terms answering every distinct idea, will be able to apply proper distinguishing terms to the comprehensive and equivocal names he is forced to make use of. This is all the need I know of distinguishing terms : and in such verbal distinctions, each term of the distinction, joined to that whose sinification it distinguishes, is but a distinct name for a distinct idea. Where they are so, and men have clear and distinct conceptions that answer their verbal distinctions, they are right, and are pertinent as far as they serve to clear anything in the subject under consideration. And this is that which seems to me the proper and only measure of distinctions and divisions,—which he that will conduct his understanding

right must not look for in the acuteness of invention nor the authority of writers, but will find only in the consideration of things themselves, whether he is lead into it by his own meditations or the information of books.

An aptness to jumble things together wherein can be found any likeness, is a fault in the understanding on the other side, which will not fail to mislead it, and by thus lumping of things, hinder the mind from distinct and accurate conceptions of them.

**32. Similes.** To which let me here add another near of kin to this, at least in name ; and that is letting the mind, upon the suggestion of any new notion, run immediately after similes to make it the clearer to itself ; which, though it may be a good way and useful in the explaining our thoughts to others, yet it is by no means a right method to settle true notions of anything in ourselves. Because similes always fail in some part, and come short of that exactness which our conceptions should have to things if we would think aright. This, indeed, makes men plausible talkers ; for those are always most acceptable in discourse who have the way to let their thoughts into other men's minds with the greatest ease and facility ; whether those thoughts are well formed and correspond with things, matters not ; few men care to be instructed but at an easy rate. They who in their discourse strike the fancy, and take the hearers' conceptions along with them as fast as their words flow, are the applauded talkers, and go for the only merf of clear thoughts. Nothing contributes so much to this as similes, whereby men think they themselves understand better, because they are better understood. But it is one thing to think right, and another thing to know the right way to lay our thoughts before others with advantage and clearness, be they right or wrong. Well chosen similes, metaphors and allegories, with method and order, do this the best of anything ; because, being taken from objects already known and familiar to the understanding, they are conceived as fast as spoken ; and the correspondence being concluded, the thing they are brought to explain and elucidate is thought to be understood too.

Thus fancy passes for knowledge, and what is prettily said is mistaken for solid. I say not this to decry metaphor, or with design to take away that ornament of speech ; my business here is not with rhetoricians and orators, but with philosophers and lovers of truth, to whom I would beg leave to give this one rule thereby to try whether, in the application of their thoughts to any thing for the improvement of their knowlege, they do in truth comprehend the matter before them really such as it is in itself. The way to discover this is to observe whether, in the laying it before themselves or others, they make use only of borrowed representations and ideas foreign to the thing, which are applied to it by way of accommodation, as bearing some proportion or imagined likeness to the subject under consideration. Figured and metaphorical expressions do well to illustrate more abstruse and unfamiliar ideas, which the mind is not yet thoroughly accustomed to ; but then they must be made use of to illustrate ideas that we already have, not to paint to us those which we yet have not. Such borrowed and allusive ideas may follow real and solid truth, to set it off when found,—but must by no means be set in its place and taken for it. If all our search has yet reached no farther than simile and metaphor, we may assure ourselves we rather fancy than know, and are not yet penetrated into the inside and reality of the thing, be it what it will,—but content ourselves with what our imaginations, not things themselves, furnish us with.

**33. Assent.** In the whole conduct of the understanding, there is nothing of more moment than to know when and where, and how far to give assent, and possibly there is nothing harder. It is very easily said, and no body questions it, that giving and withholding our assent and the degrees of it should be regulated by the evidence which things carry with them ; and yet we see men are not the better for this rule ; some firmly embrace doctrines upon slight grounds, some upon no grounds, and some contrary to appearance : some admit of certainty, and are not to be moved in what they hold ; others waver in everything, and there want not those that reject all as

uncertain. What then shall a novice, an inquirer, a stranger do in the case? I answer, use his eyes. There is a correspondence in things, and agreement and disagreement in ideas, discernible in every different degrees, and there are eyes in men to see them if they please; only their eyes may be dimmed or dazzled, and the discerning sight in them impaired or lost. Interest and passion dazzle; the custom of arguing on any side, even against our persuasions dims the understanding, and makes it by degrees lose the faculty of discerning clearly between truth and falsehood, and so of adhering to the right side. It is not safe to play with error and dress it up to ourselves or others in the shape of truth. The mind by degrees loses its natural relish of real solid truth, is reconciled insensibly to anything that can but be dressed up into any faint appearance of it. And, if the fancy be allowed the place of judgment at first in sport, it afterwards comes by use to usurp it; and what is recommended by this flatterer (that studies but to please) is received for good. There are so many ways of fallacy, such arts of giving colours, appearances, and resemblances by this court dresser,—the fancy,—that he who is not wary to admit nothing but truth itself, very careful not to make his mind subservient to anything else, cannot but be caught. He that has a mind to believe has half assented already; and he that by often arguing against his own sense imposes falsehoods on others, is not far from believing himself. This takes away the great distance there is betwixt truth and falsehood; it brings them almost together, and makes it no great odds in things that approach so near which you take; and when things are brought to that pass, passion, or interest, &c. easily, and without being perceived, determine which shall be the right.

**84. Indifferency.**—I have said above that we should keep a perfect indifferency for all opinions, not wish any of them true, or try to make them appear so; but, being indifferent, receive and embrace them according as evidence, and that alone, gives the attestation of truth. They that do thus,—i. e. keep their minds indifferent to opinions, to be determined only by evidence,—will always

find the understanding has perception enough to distinguish between evidence or no evidence, betwixt plain and doubtful ; and if they neither give nor refuse their assent but by that measure, they will be safe in the opinions they have. Which being perhaps but few, this caution will have also this good in it, that it will put them upon considering, and teach them the necessity of examining more than they do ; without which the mind is but a receptacle of inconsistencies, not the storehouse of truths. They that do not keep up this indifferency in themselves for all but truth, (not supposed, but evidenced in themselves,) put coloured spectacles before their eyes, and look on things through false glasses and then think themselves excused in following the false appearances, which they themselves put upon them. I do not expect that by this way the assent should in every one be proportioned to the grounds and clearness wherewith every truth is capable to be made out, or that men should be perfectly kept from error ; that is more than human nature can by any means be advanced to. I aim at no such unattainable privilege ; I am only speaking of what they should do, who would deal fairly with their own minds, and make a right use of their faculties in the pursuit of truth. We fail them a great deal more than they fail us. It is mismanagement more than want of abilities that men have reason to complain of, and which they actually do complain of in those that differ from him. He that, by an indifferency for all but truth, suffers not his assent to go faster than his evidence, nor beyond it, will learn to examine, and examine fairly instead of presuming, and no body will be at a loss or in danger for want of embracing those truths which are necessary in his station and circumstances. In any other way but this, all the world are born to orthodoxy ; they imbibe at first the allowed opinions of their country and party, and so never questioning their truth, not one of a hundred ever examines. They are applauded for presuming they are in the right. He that considers is a foe to orthodoxy, because possibly he may deviate from some of the received doctrines there. And thus men, without any industry or acquisition of their own, inherit local

truths (for it is not the same everywhere) and are inured to assent without evidence. This influences further than is thought; for what one of a hundred of the zealous bigots in all parties ever examined the tenets he is so stiff in, or ever thought it his business or duty so to do? It is suspected of lukewarmness to suppose it necessary, and a tendency to apostasy to go about it. And if a man can bring his mind once to be positive and fierce for positions whose evidence he has never once examined, (and that in matters of greatest concernment to him,) what shall keep him from this short and easy way of being in the right in cases of less moment? Thus we are taught to clothe our minds as we do our bodies,—after the fashion in vogue; and it is accounted fantasticalness, or something worse, not to do so. This custom (which who dares oppose?) makes the short-sighted bigots, and the warier sceptics, as far as it prevails: and those that break from it are in danger of heresy: for taking the whole world, how much of it doth truth and orthodoxy possess together? Though it is by the last alone (which has the good luck to be everywhere) that error and heresy are judged of: for argument and evidence signify nothing in the case, and excuse nowhere, but are sure to be borne down in all societies by the infallible orthodoxy of the place. Whether this be the way to truth and right assent, let the opinions that take place and prescribe in the several habitable parts of the earth, declare. I never saw any reason yet why truth might not be trusted to its own evidence: I am sure if that be not able to support it, there is no fence against error; and then truth and falsehood are but names that stand for the same things. Evidence therefore is that by which alone every man is (and should be) taught to regulate his assent; who is then, and then only, in the right way when he follows it.

Men deficient in knowledge, are usually in one of these three states; either wholly ignorant; or as doubting of some proposition they have either embraced formerly, or at present are inclined to; or, lastly, they do with assurance hold and profess, without ever having examined and been convinced by well grounded arguments.

The first of these are in the best state of the three, by having their minds yet in their perfect freedom and indifferency, the likelier to pursue truth the better, having no bias yet clapped on to mislead them.

**35. Ignorance with indifferency.**—For ignorance with an indifferency for truth, is nearer to it than opinion with ungrounded inclination, which is the great source of error; and they are more in danger to go out of the way who are marching under the conduct of a guide that (it is a hundred to one) will mislead them, than he that has not yet taken a step, and is likelier to be prevailed on to inquire after the right way.

The last of the three sorts are in the worst condition of all; for if a man can be persuaded and fully assured of any thing for a truth, without, having examined, what is there that he may not embrace for truth? And if he has given himself up to believe a lie, what means is there left to recover one who can be assured without examining? To the other two, this I crave leave to say, that as he that is ignorant is in the best state of the two, so he should pursue, truth in a method suitable to that state; i. e. by inquiring directly into the nature of the thing itself, without minding the opinions of others, or troubling himself with their questions or disputes about it; but to see what he himself can, sincerely searching after truth, find out. He that proceeds upon other principles in his inquiry into any sciences, though he be resolved to examine them and judge of them freely, does yet at least put himself on that side, and post himself in a party which he will not quit till he be beaten out; by which the mind is insensibly engaged to make what defence it can, and so is unawares biased. I do not say but a man should embrace some opinion when he has examined, else he examines to no purpose; but the surest and safest way is to have no opinion at all till he has examined, and that without any the least regard to the opinions or systems of other men about it. For example, were it my business to understand physic, would not the safer and readier way be to consult nature herself, and inform myself in the history of diseases and their cures,



than espousing the principles of the dogmatists, methodists, or chymists, to engage in all the disputes concerning either of those systems, and suppose it to be true, till I have tried what they can say to beat me out of it? Or, supposing that Hippocrates, or any other book, infallibly contains the whole art of physic; would not the direct way be to study, read, and consider that book, weigh and compare the parts of it to find the truth, rather than espouse to doctrines of any party—who, though they acknowledge his authority, have already interpreted and wiredrawn all this text to their own sense; the tincture whereof when I have imbibed, I am more in danger to misunderstand his true meaning, than if I had come to him with a mind unprepossessed by doctors and commentators of my sect, whose reasonings, interpretation, and language, (which I have been used to,) will of course make all chime that way, and make another and perhaps the genuine meaning of the author seem harsh, strained, and uncouth to me. For words, having naturally none of their own, carry that signification to the hearer that he is used to put upon them, whatever be the sense of him that uses them. This, I think, is visibly so; and if it be, he that begins to have any doubt of any of his tenets,—which he received without examination,—ought, as much as he can, to put himself wholly into this state of ignorance in reference to that question; and throwing wholly by all his former notions, and the opinions of others, examine, with a perfect indifferency, the question in its source, without any inclination to either side or any regard to his or others' unexamined opinions. This I own is no easy thing to do; but I am not inquiring the easy way to opinion, but the right way to truth, which they must follow who will deal fairly with their own understanding and their own souls.

**36. Question.**—The indifferency that I here propose will also enable them to state the question right, which they are in doubt about, without which they can never come to a fair and clear decision of it.

**37. Perseverance.**—Another fruit from this indifferency and the considering things in themselves abstract from our own opinions and other men's notions and discourses on them, will be, that each man will pursue his thoughts in that method which will be most agreeable to the nature of the thing, and to his apprehension of what it suggests to him, in which he ought to proceed with regularity and constancy, until he come to a well-grounded resolution wherein he may acquiesce. If it be objected that this will require every man to be a scholar, and quit all his other business and betake himself wholly to study; I answer, I propose no more to any one than he has time for. Some men's state and condition require no great extent of knowledge; the necessary provision for life swallows the greatest part of their time. But one man's want of leisure is no excuse for the oscitancy and ignorance of those who have time to spare; and every one has enough to get as much knowledge as is required and expected of him, and he that does not that, is in love with ignorance and is accountable for it.

**38. Presumption.**—The variety of distempers in men's minds is as great as of those in their bodies; some are epidemic, few escape them; and every one too, if he would look into himself, would find some defect of his particular genius. There is scarce any one without some idiosyncrasy that he suffers by. This man presumes upon his parts, that they will not fail him at time of need and so thinks it superfluous labour to make any provision beforehand. His understanding is to him like Fortunatus's purse, which is always to furnish him, without ever putting anything into it beforehand; and so he sits still satisfied, without endeavouring to store his understanding with knowledge. It is the spontaneous product of the country, and what need of labour in tillage? Such men may spread their native riches before the ignorant; but they were best not come to stress and trial with the skilful.

We are born ignorant of everything. The superficialities of things that surround them make impressions on the negligent, but nobody penetrates into the inside without la-

hour, attention, and industry. Stones and timber grow of themselves, but yet there is no uniform pile with symmetry and convenience to lodge in, without toil and pains. God has made the intellectual world harmonious and beautiful without us ; but it will never come into our heads all at once ; we must bring it home piecemeal, and there set it up by our own industry, or else we shall have nothing but darkness and a chaos within, whatever order and light there be in things without us.

**39. Despondency.**—On the other side, there are others that depress their own minds, despond at the first difficulty, and conclude that the getting an insight in any of the sciences, or making any progress in knowledge, further than serves their ordinary business, is above their capacities. These sit still, because they think they have not legs to go ; as the others I last mentioned do, because they think they have wings to fly, and can soar on high when they please. To these latter, one may for answer apply the proverb, “Use legs and have legs.” Nobody knows what strength of parts he has till he has tried them. And of the understanding one may most truly say, that its force is greater generally than it thinks, till it is put to it. “*Viresque acquirit eundo.*”

And therefore the proper remedy here is but to set the mind to work, and apply the thoughts vigorously to the business ; for it holds in the struggles of the mind as in those of war, “*Dum putant, se vincere, vicere.*” A persuasion that we shall overcome any difficulties that we meet with in the sciences, seldom fails to carry us through them. Nobody knows the strength of his mind, and the force of steady and regular application, till he has tried. This is certain, he that sets out upon weak legs will not only go farther, but grow stonger too than one who, with a vigorous constitution and firm limbs, only sits still.

Something of kin to this, men may observe in themselves, when the mind frights itself (as it often does) with anything reflected on in gross, and transiently viewed confusedly and at a distance. Things, thus offered to the mind, carry the show of nothing but difficulty in them, and are

thought to be wrapped up in impenetrable obscurity. But the truth is, there are nothing but spectres that the understanding raises to itself to flatter its own laziness. It sees nothing distinctly in things remote and in a huddle ; and therefore concludes too faintly, that there is nothing more clear to be discovered in them. It is but to approach nearer, and that mist of our own raising that enveloped them will remove ; and those that in that mist appeared hideous giants not to be grappled with, will be found to be of the ordinary and natural size and shape. Things that in a remote and confused view seem very obscure, must be approached by gentle and regular steps ; and what is most visible, easy, and obvious in them, first considered. Reduce them into their distinct parts ; and then in their due order bring all that should be known concerning every one of those parts into plain and simple questions ; and then what was thought obscure, perplexed, and too hard for our weak parts, will lay itself open to the understanding in a fair view, and let the mind into that which before it was awed with, and kept at a distance from, as wholly mysterious. I appeal to my reader's experience, whether this has never happened to him, especially when, busy on one thing, he has occasionally reflected on another. I ask him, whether he has never thus been scared with a sudden opinion of mighty difficulties, which yet have vanished, when he has seriously and methodically applied himself to the consideration of this seeming terrible subject ; and there has been no other matter of astonishment left, but that he amused himself with so discouraging a prospect of his own raising, about a matter which in the handling was found to have nothing in it more strange nor intricate than several other things which he had long since, and with ease, mastered. This experience would teach us how to deal with such bugbears another time, which would rather serve to excite our vigour than enervate our industry. The surest way for a learner in this, as in all other cases, is not to advance by jumps and large strides ; let that which he sets himself to learn next be indeed the next, i. e. as nearly conjoined with what he knows already as is possible . let it be distinct, but not remote from it ; let it be new, and

what he did not know before, that the understanding may advance ; but let it be as little at once as may be, that its advances may be clear and sure. All the ground that it gets this way it will hold. This distinct gradual growth in knowledge is firm and sure ; it carries its own light with it in every step of its progression in an easy and orderly train ; than which there is nothing of more use to the understanding.

And though this perhaps may seem a very slow and lingering way to knowledge, yet I dare confidently affirm, that whoever will try it in himself, or any one he will teach, shall find the advances greater in this method, than they would in the same space of time have been in any other he could have taken. The greatest part of true knowledge lies in a distinct perception of things in themselves distinct. And some men give more clear light and knowledge by the bare distinct stating of a question, than others by talking of it in gross, whole hours together. In this, they who so state a question, do no more but separate and disentangle the parts of it one from another, and lay them, when so disentangled, in their due order. This often, without any more ado, resolves the doubt, and shows the mind where the truth lies. The agreement or disagreement of the ideas in question, when they are once separated and distinctly considered, is, in many cases, presently perceived, and thereby clear and lasting knowledge gained ; whereas things in gross taken up together, and so lying together in confusion, can produce in the mind but a confused, which in effect is no knowledge ; or at least, when it comes to be examined and made use of, will prove little better than none. I therefore take the liberty to repeat here again what I have said elsewhere, that in learning any thing, as little should be proposed to the mind at once as is possible ; and, that being understood and fully mastered, to proceed to the next adjoining part, yet unknown,—simple, unperplexed proposition, belonging to the matter in hand, and tending to the clearing what is principally designed.

**40. Analogy.**—Analogy is of great use to the mind in many cases, especially in natural philosophy ; and that

part of it chiefly which consists in happy and successful experiments. But here we must take care that we keep ourselves within that wherein the analogy consists. For example, the acid oil of vitriol is found to be good in such a case, therefore the spirit of nitre or vinegar may be used in the like case. If the good effect of it be owing wholly to the acidity of it, the trial may be justified ; but if there be something else besides the acidity in the oil of vitriol, which produces the good we desire in the case, we mistake that for analogy which is not, and suffer our understanding to be misguided by a wrong supposition of analogy where there is none.

**41. Association.**—Though I have, in the second book of my Essay concerning human Understanding, treated of the association of ideas ; yet having done it there historically, as giving a view of the understanding in this as well as its several other ways of operating, rather than designing there to inquire into the remedies that ought to be applied to it : it will, under this latter consideration, afford other matter of thought to those who have a mind to instruct themselves thoroughly in the right way of conducting their understandings ; and that the rather, because this, if I mistake not, is as frequent a cause of mistake and error in us as perhaps any thing else that can be named ; and is a disease of the mind as hard to be cured as any, it being a very hard thing to convince any one that things are not so, and naturally so, as they constantly appear to him.

By this one easy and unheeded miscarriage of the understanding, sandy and loose foundations become infallible principles, and will not suffer themselves to be touched or questioned ; such unnatural connexions become by custom as natural to the mind, as sun and light, fire and warmth go together, and so seem to carry with them as natural an evidence as self-evident truths themselves. And where then shall one with hopes of success begin the cure ? Many men firmly embrace falsehood for truth ; not only because they never thought otherwise, but also because, thus blinded as they have been from the beginning, they

never could think otherwise ; at least without a vigour of mind able to contest the empire of habit, and look into its own principles ; a freedom which few men have the notion of in themselves, and fewer are allowed the practice of by others ; it being the great art and business of the teachers and guides in most sects to suppress, as much as they can, this fundamental duty which every man owes himself, and which is the first steady step towards right and truth in the whole train of his actions and opinions. This would give one reason to suspect, that such teachers are conscious to themselves of the falsehood or weakness of the tenets they profess, since they will not suffer the grounds whereon they are built to be examined ; whereas those who seek truth only, and desire to own and propagate nothing else, freely expose their principles to the test ; are pleased to have them examined ; give men leave to reject them if they can ; and if there be any thing weak and unsound in them, are willing to have it detected,—that they themselves, as well as others, may not lay any stress upon any received proposition beyond what the evidence of its truths will warrant and allow.

There is, I know, a great fault among all sorts of people of principling their children and scholars : which at last, when looked into, amounts to no more but making them imbibe their teacher's notions and tenets by an implicit faith, and firmly to adhere to them whether true or false. What colours may be given to this, or of what use it may be when practised upon the vulgar, destined to labour, and given up to the service of their bellies, I will not here inquire. But as to the ingenuous part of mankind, whose condition allows them leisure, and letters, and inquiry after truth, I can see no other right way of principling them, but to take heed, as much as may be, that in their tender years, ideas that have no natural cohesion come not to be united in their heads ; and that this rule be often inculcated to them to be their guide in the whole course of their lives and studies, viz. that they never suffer any ideas to be joined in their understandings in any other or stronger combination than what their own nature and correspondence give them ; and that they often examine those that

they find linked together in their minds,—whether this association of ideas be from the visible agreement that is in the ideas themselves, or from the habitual and prevailing custom of the mind joining them thus together in thinking.

This is for caution against this evil, before it be thoroughly riveted by custom in the understanding. But he that would cure it when habit has established it, must nicely observe the very quick and almost imperceptible motions of the mind in its habitual actions. What I have said in another place about the change of the ideas of sense into those of judgment, may be proof of this. Let any one, not skilled in painting, be told when he sees bottles and tobacco-pipes, and other things so painted, as they are in some places shown, that he does not see protuberances, and you will not convince him but by the touch; he will not believe that by an instantaneous *legerdemain* of his own thoughts, one idea is substituted for another. How frequent instances may one meet with of this in the arguings of the learned, who not seldom, in two ideas that they have been accustomed to join in their minds, substitute one for the other; and I am apt to think, often without perceiving it themselves! This, whilst they are under the deceit of it, makes them incapable of conviction, and they applaud themselves as zealous champions for truth, when indeed they are contending for error. And the confusion of two different ideas,—which a customary connexion of them in their minds, hath made to them almost one—fills their head with false views, and their reasonings with false consequences.

**42. Fallacies**—Right understanding consists in the discovery and adherence to truth, and that in the perception of the visible or probable agreement or disagreement of ideas, as they are affirmed and denied one of another. From whence it is evident, that the right use and conduct of the understanding, (whose business is purely truth and nothing else,) is, that the mind should be kept in a perfect indifferency, not inclining to either side, any further than evidence settles it by knowledge, or the overbalance of



probability gives it the turn of assent and belief. But yet it is very hard to meet with any discourse, wherein one may not perceive the author not only maintain (for that is reasonable and fit) but inclined and biassed to one side of the question, with marks of a desire that that should be true. If it be asked me, how authors who have such a bias and lean to it may be discovered ; I answer, by observing how in their writings or arguings they are often led by their inclinations to change the ideas of the question, either by changing the terms, or by adding and joining others to them ; whereby the ideas under consideration are so varied as to be more serviceable to their purpose, and to be thereby brought to an easier and nearer agreement, or more visible and remoter disagreement, one with another.

This is plain and direct sophistry ; but I am far from thinking that wherever it is found it is made use of with design to deceive and mislead the readers. It is visible that men's prejudices and inclinations by this way impose often upon themselves ; and their affection for truth, under their prepossession in favour of one side, is the very thing that leads them from it. Inclination suggests and slides into their discourse favourable terms, which introduce favourable ideas ; till at last, by this means that is concluded clear and evident, (thus dressed up,) which,—taken in its native state, by making use of none but the precise determined ideas,—would find no admittance at all.

The putting these glosses on what they affirm, (these, as they thought, handsome, easy, and graceful explications of what they are discoursing on,) is so much the character of what is called and esteemed writing well, that it is very hard to think that authors will ever be persuaded to leave what serves so well to propagate their opinions, and procure themselves credit in the world,—for a more jejune and dry way of writing, by keeping to the same terms precisely annexed to the same ideas ; a sour and blunt stiffness tolerable in mathematicians only, who force their way, and make truth prevail, by irresistible demonstration.

But yet if authors cannot be prevailed with to quit the looser, though more insinuating, ways of writing ; if they will not think fit to keep close to truth and instruction by

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unvaried terms and plain unsophisticated arguments ; yet it concerns readers not to be imposed on by fallacies and the prevailing ways of insinuation. To do this, the surest and most effectual remedy is to fix in the mind the clear and distinct ideas of the question stripped of words ; and so likewise, in the train of argumentation, to take up the author's ideas, neglecting his words, observing how they connect or separate those in question. He that does this will be able to cast off all that is superfluous ; he will see what is pertinent, what coherent, what is direct to, what slides by, the question. This will readily show him all the foreign ideas in the discourse, and where they were brought in ; and though they perhaps dazzled the writer, yet he will perceive that they give no light nor strength to his reasonings.

This, though it be the shortest and easiest way of reading books with profit, and keeping one's self from being misled by great names or plausible discourses : yet it being hard and tedious to those who have not accustomed themselves to it, it is not to be expected that every one (amongst those few who really pursue truth) should this way guard his understanding from being imposed on by the wilful (or at least undersigned) sophistry, which creeps into most of the books of argument. They that write against their conviction, or that next to them are resolved to maintain the tenets of a party they were engaged in, cannot be supposed to reject any arms that may help to defend their cause ; and therefore such should be read with the greatest caution. And they who write for opinions they are sincerely persuaded of and believe to be true, think they may so far allow themselves to indulge their laudable affection to truth, as to permit their esteem of it to give it the best colours, and set it off with the best expressions and dress they can, —thereby to gain it the easiest entrance into the minds of their readers, and fix it deepest there.

One of those being the state of mind we may justly suppose most writers to be in, it is fit their readers, who apply to them for instruction, should not lay by that caution which becomes a sincere pursuit of truth ; and should make them always watchful against whatever might conceal or

misrepresent it. If they have not the skill of representing to themselves the author's sense by pure ideas separated from sounds, and thereby divested of the false lights and deceitful ornaments of speech ; this yet they should do—they should keep the precise question steadily in their minds, carry it along with them through the whole discourse, and suffer not the least alteration in the terms, either by addition, subtraction, or substituting any other. This every one can do who has a mind to it ; and he that has not a mind to it, it is plain, makes his understanding only the warehouse of other men's lumber ; I mean false and un-concluding reasonings rather than a repository of truth for his own use, which will prove substantial and stand him in stead when he has occasion for it. And whether such an one deals fairly by his own mind, and conducts his own understanding right, I leave to his own understanding to judge.\*

**43. Fundamental verities.**—The mind of man being very narrow, and so slow in making acquaintance with things, and taking in new truths, that no one man is capable, in a much longer life than ours, to know all truths ; it becomes our prudence, in our search after knowledge, to employ our thoughts about fundamental and material questions,—carefully avoiding those that are trifling, and not suffering ourselves to be diverted from our main even purpose by those that are merely incidental. How much of many young men's time is thrown away in purely logical inquiries, I need not mention. This is no better than if a man, who was to be a painter, should spend all his time in examining the threads of the several cloths he is to paint upon, and counting the hairs of each pencil and brush he intends to use in the laying on of his colours. Nay, it is much worse than for a young painter to spend his apprenticeship in such useless niceties ; for he, at the end of all his pains to no purpose, finds that it is not painting, nor any help to it, and so is really to no purpose ; whereas men designed for scholars have often their heads so filled and warmed with disputes on logical questions, that they take those airy useless notions for real

and substantial knowledge, and think their understandings so well furnished with science, that they need not look any further into the nature of things, or descend to the mechanical drudgery of experiment and inquiry. This is so obvious a mismanagement of the understanding,—and that in the professed way to knowledge,—that it could not be passed by; to which might be joined abundance of questions, and the way of handling of them in the schools. What faults in particular of this kind every man is or may be guilty of, would be infinite to enumerate; it suffices to have shown that superficial and slight discoveries, and observations that contain nothing of moment in themselves, nor serve as clues to lead us into further knowledge, should not be thought worth our searching after.

There are fundamental truths that lie at the bottom, the basis upon which a great many others rest, and in which they have their consistency. These are teeming truths, rich in store, with which they furnish the mind, and, like the lights of heaven, are not only beautiful and entertaining in themselves, but give light and evidence to other things, that without them could not be seen or known. Such is that admirable discovery of Mr. Newton, that all bodies gravitate to one another, which may be counted as the basis of natural philosophy; which, of what use it is to the understanding of the great frame of our solar system, he has to the astonishment of the learned world shown; and how much further it would guide us in other things, if rightly pursued, is not yet known. Our Saviour's great rule, that *we should love our neighbour as ourselves*, is such a fundamental truth for the regulating human society, that I think by that alone one might without difficulty determine all the cases and doubts in social morality. These, and such as these, are the truths we should endeavour to find out and store our minds with. Which leads me to another thing in the conduct of the understanding that is no less necessary, viz.—

**44. Bottoming.**—To accustom ourselves, in any question proposed, to examine and find out upon what it bottoms. Most of the difficulties that come in our way,

when well considered and traced, lead us to some proposition which, known to be true, clears the doubt, and gives an easy solution of the question ; whilst topical and superficial arguments,—of which there is store to be found on both sides, filling the head with variety of thoughts and the mouth with copious discourse,—serve only to amuse the understanding, and entertain company without coming to the bottom of the question, the only place of rest and stability for an inquisitive mind, whose tendency is only to truth and knowledge.

For example, if it be demanded, whether the Grand Signior can lawfully take what he will from any of his people ; this question cannot be resolved without coming to a certainty whether all men are naturally equal,—for upon that it turns. And that truth, well settled in the understanding, and carried in the mind through the various debates concerning the various rights of men in society, will go a great way in putting an end to them and showing on which side the truth is.

**45. Transferring of thoughts.**—There is scarcely anything more for the improvement of knowledge, for the ease of life, and the despatch of business, than for a man to be able to dispose of his own thoughts ; and there is scarcely anything harder in the whole conduct of the understanding than to get a full mastery over it. The mind, in a waking man has always some object that it applies itself to ; which, when we are lazy or unconcerned, we can easily change, and at pleasure transfer our thoughts to another, and from thence to a third, which has no relation to either of the former. Hence men forwardly conclude, and frequently say, nothing is so free as thought ; and it were well it were so. But the contrary will be found true in several instances ; and there are many cases wherein there is nothing more resty and ungovernable than our thoughts : they will not be directed what objects to pursue, nor be taken off from those they have once fixed on, but run away with a man in pursuit of those ideas they have in view, let him do what he can.

I will not here mention again what I have above taken

notice of, how hard it is to get the mind,—narrowed by a custom of thirty or forty years' standing to a scanty collection of obvious and common ideas,—to enlarge itself to a more copious stock, and grow into an acquaintance with those that would afford more abundant matter of useful contemplation; it is not of this I am here speaking. The inconvenience I would here represent and find a remedy for, is the difficulty there is sometimes to transfer our minds from one subject to another, in cases where the ideas are equally familiar to us.

Matters that are recommended to our thoughts by any of our passions, take possession of our minds with a kind of authority, and will not be kept out or dislodged; but,—as if the passion that rules were, for the time, the sheriff of the place, and came with all the posse,—the understanding is seized and taken with the object it introduces, as if it had a legal right to be alone considered there. There is scarcely anybody I think of so calm a temper who hath not sometime found this tyranny on his understanding, and suffered under the inconvenience of it. Who is there almost whose mind, at some time or other, love or anger, fear or grief, has not so fastened to some clog, that it could not turn itself to any other object? I call it a clog, for it hangs upon the mind so as to hinder its vigour and activity in the pursuit of other contemplations; and advances itself little, or not at all, in the knowledge of the thing which it so closely hugs and constantly pores on. Men thus possessed are sometimes as if they were so in the worse sense, and lay under the power of an enchantment. They see not what passes before their eyes, hear not the audible discourse of the company; and when by any strong application to them they are roused a little, they are like men brought to themselves from some remote region; whereas in truth they come no farther than from their secret cabinet within, where they have been wholly taken up with the puppet, which is for that time appointed for their entertainment.

The shame that such dumps cause to well-bred people, when it carries them away from the company, where they should bear a part in the conversation, is a

sufficient argument that is a fault in the conduct of our understanding not to have that power over it as to make use of it to those purposes, and on those occasions, wherein we have need of its assistance. The mind should be always free and ready to turn itself to the variety of objects that occur, and allow them as much consideration as shall for that time be thought fit. To be engrossed so by one object as not to be prevailed on to leave it for another that we judge fitter for our contemplation, is to make it of no use to us. Did this state of mind remain always so, every one would, without scruple, give it the name of perfect madness ; and whilst it does last, at whatever intervals it returns, such a rotation of thoughts about the same object no more carries us forward towards the attainment of knowledge, than getting upon a mill-horse whilst he jogs on in his circular track would carry a man a journey.

I grant something must be allowed to legitimate passions and to natural inclinations. Every man, besides occasional affections, has beloved studies, and those the mind will more closely stick to ; but yet it is best that it should be always at liberty, and under the free disposal of the man, and to act how and upon what he directs. This we should endeavour to obtain unless we would be content with such a flaw in our understanding, that sometimes we should be, as it were, without it ; for it is very little better than so in cases where we cannot make use of it to those purposes we would, and which stand in present need of it.

But before fit remedies can be thought on for this disease, we must know the several causes of it, and thereby regulate the cure, if we will hope to labour with success.

One we have already instanced in, whereof all men that reflect have so general a knowledge, and so often an experience in themselves, that nobody doubts of it. A prevailing passion so pins down our thoughts to the object and concern of it, that a man passionately in love cannot bring himself to think of his ordinary affairs, or a kind mother, drooping under the loss of a child, is not able to bear a part as she was wont in the discourse of the company or conversation of her friends.

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But though passion be the most obvious and general, yet it is not the only cause that binds up the understanding, and confines it for the time to one object from which it will not be taken off. Besides this, we may often find that the understanding,—when it has a while employed itself upon a subject which either chance or some slight accident offered to it, without the interest or recommendation of any passion,—works itself into a warmth, and by degrees gets into a career ; wherein, like a bowl down a hill, it increases its motion by going, and will not be stopped or diverted ; though, when the heat is over, it sees all this earnest application was about a trifle not worth a thought, and all the pains employed about it lost labour.

There is a third sort, if I mistake not, yet lower than this ; it is a sort of childishness, (if I may so say,) of the understanding, wherein, during the fit, it plays with and dandles some insignificant puppet to no end, ~~nor~~ with any design at all, and yet cannot easily be got off from it. Thus some trivial sentence, or a scrap of poetry, will sometimes get into men's heads, and make such a chiming there, that there is no stilling of it ; no peace to be obtained, nor attention to any thing else, but this impertinent guest will take up the mind and possess the thoughts in spite of all endeavours to get rid of it. Whether every one hath experimented in themselves this troublesome intrusion of some frisking ideas which thus importune the understanding, and hinder it from being better employed, I know not. But persons of very good parts, and those more than one, I have heard speak and complain of it themselves. The reason I have to make this doubt, is from what I have known in a case something of kin to this, though much odder, and that is of a sort of visions that some people have lying quiet, but perfectly awake, in the dark, or with their eyes shut. It is a great variety of faces, most commonly very odd ones, that appear to them in a train one after another ; so that having had just the sight of the one, it immediately passes away to give place to another, that the same instant succeeds, and has as quick an exit as its leader ; and so they march on in a constant succession ; nor can any one



of them by any endeavour be stopped or retained beyond the instant of its appearance, but is thrust out by its follower, which will have its turn. Concerning this fantastical phenomenon I have talked with several people, whereof some have been perfectly acquainted with it, and others have been so wholly strangers to it that they could hardly be brought to conceive or believe it. I knew a lady of excellent parts, who had got past thirty without having ever had the least notice of any such thing ; she was so great a stranger to it, that when she heard me and another talking of it, could scarce forbear thinking we bantered her ; but sometime after, drinking a large dose of dilute tea (as she was ordered by a physician) going to bed, she told us at next meeting, that she had now experimented what our discourse had much ado to persuade her of. She had seen a great variety of faces in a long train, succeeding one another, as we had described ; they were all strangers and intruders, such as she had no acquaintance with before, nor sought after then ; and as they came of themselves they went too ; none of them stayed a moment, nor could be detained by all the endeavours she could use, but went on in their solemn procession, just appeared and then vanished. This odd phenomenon seems to have a mechanical cause, and to depend upon the matter and motion of the blood or animal spirits.

When the fancy is bound by passion, I know no way to set the mind free and at liberty to prosecute what thoughts the man would make choice of, but to allay the present passion, or counterbalance it with another ; which is an art to be got by study, and acquaintance with the passions.

Those who find themselves apt to be carried away with the spontaneous currents of their own thoughts, not excited by any passion or interest, must be very wary and careful in all the instances of it to stop it, and never humour their minds in being thus triflingly busy. Men know the value of their corporeal liberty, and therefore suffer not willingly fetters and chains to be put upon them. To have the mind captivated is, for the time, certainly the greater evil of the two, and deserves our utmost care and

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endeavours to preserve the freedom of our better part. In this case our pains will not be lost ; striving and struggling will prevail, if we constantly, in all such occasions, make use of it. We must never indulge these trivial attentions of thought ; as soon as we find the mind makes itself a business of nothing, we should immediately disturb and check it, introduce new and more serious considerations, and not leave till we have beaten it off from the pursuit it was upon. This, at first, if we have let the contrary practice grow to a habit, will perhaps be difficult ; but constant endeavours will by degrees prevail, and at last make it easy. And when a man is pretty well advanced, and can command his mind off at pleasure from incidental and undersigned pursuits, it may not be amiss for him to go on further, and make attempts upon meditations of greater moment ; that at the last he may have a full power over his own mind, and be so fully master of his own thoughts, as to be able to transfer them from one subject to another, with the same ease that he can lay by any thing he has in his hand and take something else that he has a mind to, in the room of it. This liberty of mind is of great use both in business and study ; and he that has got it will have no small advantage of ease and despatch, in all that is the chosen and useful employment of his understanding.

The third and last way which I mentioned the mind to be sometimes taken up with,—I mean the chiming of some particular words or sentence in the memory, and, as it were, making a noise in the head, and the like,—seldom happens but when the mind is lazy, or very loosely and negligently employed. It were better indeed be without such impertinent and useless repetitions ; any obvious idea, when it is roving causelessly at a venture, being of more use and apter to suggest something worth consideration, than the insignificant buzz of purely empty sounds. But since the rousing of the mind, and setting the understanding on work with some degrees of vigour, does for the most part presently set it free from these idle companions ; it may not be amiss whenever we find ourselves troubled with them, to make use of so profitable a remedy that is always at hand.

## NOTES.

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N. B.—Where the words from the text—printed in antique—are followed by a dash, the note is a paraphrase of such words only; but where a note is preceded by a colon, it has reference to the whole or a part of the sentence from which the words in antique are taken.

[Introduction.] **Last resort**—the ultimate means. **Conduct**—guidance. **Understanding** the faculty of forming judgments on the knowledge derived through the senses, as well as on all notions ideas &c.\* In this sentence, the author means that if we analyse the mode in which men guide themselves, we find that their actions are ultimately to be traced to their understanding. See Introduction, V. **Distinguish**: divide the human mind into separate faculties or Powers (such as Memory, Will, Reasoning &c.) **Agent**: as if the will were the individual that acts.† **Which is the agent**: *which* is now no longer used as a personal relative; but that *the* is quite common in Shakespeare and the English Bible (Cf. "Our Father which art in Heaven" in Christ's Prayer.) The Anglo-Saxon form *hwile* is made up of the ablative case of *hwa*, *hwæt* i. e. *who*, *what*, and the suffix *lic*, the modern *like*. **Determines himself**—decides upon. **Precedent**—already possessed. **Appearance**: what seems to him to be true knowledge [This qualification reminds one of the Socratic theory—that men act wrongly through false knowledge, which is real ignorance, and

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\* In his great Essay *Of the Human Understanding*, Locke does not give a formal definition of *Understanding*, but he seems to use it as synonymous with *Intellect*, or *Cognitive Powers*, or, as he expressed it *the discerning faculties of a man*. He speaks of his Essay as an inquiry "unto the original (*i.e.* origin), certainty, and extent of human knowledge, together with the grounds and degrees of belief, opinion, and assent."

† In his *Essay*, Ch. XXI, Locke guards against the error of regarding the faculties generally—and the Will in particular—as separate agents: "The power which the mind has to order the consideration of any idea, or the forbearing to consider it: or to prefer the motion of any part of the body to its rest, and *vice versa*, in any particular instance, is that which we call the Will. \* \* \* The Will in truth signifies nothing but a power or ability to prefer or choose; and when the will under the name of a *faculty* is considered as it is, the absurdity in saying it is free, will easily discover itself. For if it be reasonable to suppose and talk of faculties, as distinct beings that can act (as we do when we say the Will orders) it is fit that we should make a speaking faculty, a walking faculty and a dancing faculty, by which those actions are produced; as well as we make the will and the Understanding to be faculties, by which the actions of choosing and perceiving are produced—which We but several modes of thinking. *The fault has been, that faculties have been spoken of and represented as so many distinct agents.* For it being asked, what it was that digested the meat in our stomachs? it was a ready answer, to say that it was the digestive faculty, \* \* \* To the question, what is it determines the the will?—the true and proper answer is. The Mind. \* \* \* The motive for continuing in the same state or action, is, only the present satisfaction in it; the motive to change, is always some uneasiness. This is the great motive that works on the mind—which we will call determining of the Will."

that to be virtuous is the same thing as truly knowing how to act rightly.] **Served him**: though it may not be worthy to be called a reason. (Mark how careful Locke is not to be misunderstood.) **Such light**—the amount of knowledge—large or small. **Operative powers**: called *Active powers* by Reid,—the powers or faculties of the mind which lead to action (as distinguished from the *Cognitive powers*, which are concerned with knowledge.) **How absolute**: Locke did not hold the extreme form of the doctrine of the Freedom of the will, and calls it a misuse of terms to call the will free. **Images in men's minds**: The author is evidently thinking of the *Idola* or "idols", described by Bacon, in his *Novum Organum*.\* **Concernment**—importance. The word is nearly obsolete now. **Judgments**: decisions arrived at by the Understanding.

**Long possessed the chair**—been taught by professors in universities &c. The logic of Aristotle is of course meant. **Direction**—Directing, or training. ("Direction of the mind" would mean now the tendency or bent of the mind). **Affection**: an undus preference for what is new. **Served world**—been sufficient for scholars and philosophers. **Two or three thousand**—based from Aristotle (390-322 B. C.) the rules of scholastic logic were about 2000 years old in Locke's time. But there was a theory that Greek philosophy was borrowed (in its essentials, at any rate) from the Egyptians, or other Eastern nations, by whom it was cultivated centuries, or even thousands of years, before.

**Page 2. Rested in**—Been content with. **Doubt but**: quite common in Addison and older writers, but now replaced by *doubt that*. **This attempt**: to question the sufficiency of the rules of logic. **Lord Verulam**: This is more correct than *Lord Bacon*, for Francis Bacon received the peerage with the title of Baron Verulam, and then Viscount St. Albans. **Servilaly**—slavishly (following old opinions). **Did not rest**: instead of merely praising what existed, for its antiquity, tried to conceive how much greater it might become. **Because it was &c.**: these words pithily express the attitude of blind veneration for antiquity, and of narrow conservatism. See p. 38. Bacon exposed the common fallacy about the wisdom of our ancestors, based on the analogy of the wisdom of old men in a particular generation; observing that "we are the ancients of the earth," that our forefathers belonged to the *juventus mundi*, or youth of the world. **Enlarged might be**: Cf. "That which they (i. e. men) have done but earnest of the things that they shall do."...Tennyson's *Locksley Hall*. (See *Novum Organum*, Part I. Sec VI). **Qui summas**. The translation of the passage is

\* Bacon's *Idola* are the false notions which have taken deep root in the minds of men. Four sets of these are enumerated—1. *Idola tribus* (of the tribes—i. e. based on the fallibility of human nature itself), 2. *Idola specus* (of the cave, i. e. the errors due to the nature, education &c. of each individual), 3. *Idola fori* (of the market-place—i. e. found in human intercourse, the imperfections of language &c.), 4. *Idola theatri* (of the theatre—i. e. of the received systems of philosophy.)

given in the para that follows. It is taken from the preface to Bacon's *Instauratio Magna*, (the great scheme of new philosophy of which the *Novum Organum*, that is New Instrument, was meant to be the second part.

**Guard of** : The phrase would not be quite idiomatic now—"being guarded by" or some equiv. phrase would be used. **Took place**—was established. The phrase would now be used only of events. **Civil affairs** : *Civil* is no longer used as quite synonymous with *political*, as here. **Arts...opinion** : Bacon speaks contemptuously of the philosophy which prevailed in the Middle Ages, as consisting of mere clever disputations.

**Subtily** : the form used by Locke (and other writers of his time) for *subtlety*. **Far short...nature** : Bacon was never tired of dwelling on the infinite complexity of natural phenomena, Cf. "The subtilty of nature far exceeds the subtilty of the sense and understanding ; so that the sublime meditations, speculations and reasonings of men are but a kind of madness." *Nov. Org.*, Aphorism 10. **Introduced** : read *introduced* *Necessario* &c. : The translation of this is to be found in the preceding sentence.

**Sec. 2. Parts.** *Parts* means the talents, or mental capacities, of different men. **Art**—training, or human effort generally.

**Page 3. Woods of America** : the barbarous Red Indians. **Several degrees**—various gradations (of intellectual power). **Pretend**—aspire.

**Sec. 3. Determined**—Definite. **Intermediate** : ideas to be used in arriving at other ideas, **Miscarriages**—ways of going wrong : guiding themselves so as to fail. **This faculty viz. reason.** **Discourses**—speeches and writings. **Ministers**—clergymen.

**Who else** (*Whom* would be more grammatical than *who*,—here)—anybody whom they happen to choose as worthy of unquestioning trust. **The saving of** : *Saving* by itself would be used now instead of this phrase. **Put passion** : prefer to be guided by passion, rather than by reason. **Resolved that** : *that* refers to passion. **Neither use** : Refuse to be guided either by their own reason, or by the reason of others, wherever such reason is opposed to their caprice, interest &c. **No distinct ideas** : though the words only convey very vague ideas of them.

**Page. 4. Come—indifferency to** : in which they have no feelings to make them partial, on inclined to go wrong. *Indifferency* means impartiality—a very common use in the English of the 16th century. Cf.—"This commodity (i. e. self-interest) Makes it take head from all *indifferency*, From all direction, purpose, course intent." (Shak. *King John*, act II.) **Tractable** : easily swayed by reason.

**Round-about**—Thorough ; not defective in any respect. The phrase is now used only in the sense of "not straight, unnecessarily long." **Of moment**—indispensable. **But in part** : from St. Paul's *First Letter to the Corinthians* (New Test.) ch. xiii, where he speaks of the contrast between our imperfect knowledge here with perfect

knowledge in the life to come: "For we know in part, and prophecy in part. \* \* For now we say through a glass, darkly; but then face to face; now I know in part, but then shall I know even as also I am known." **Conclude not right**—come to a wrong conclusion. [This source of error is dealt with in a very interesting and masterly way in Herbert Spencer's *Study of Sociology*, ch. V.] **Proudest esteemer**—he who has an absurdly high opinion of his own powers. **Prospects**—views. **Different positions**: what may be called our various stand-points. **Incongruous**—absurd. **Never deceive**: So in the Introduction to the Essay, Locke says: "We shall not have much reason to complain of the narrowness of our minds, if we will but employ them about what may be of use to us, for of that they are very capable." See Introduction to the present edition, pp. vii—viii. **Its consequences**: the conclusions reached by the power of reasoning from the facts on which such reasoning is based. **It oftenest... a part**: we are led astray by our reasoning faculties, only or chiefly when we start from partial or imperfect data, **Principles**: used here for the data of reasoning. But the use of this word shows that the author is thinking of deductive reasoning, though it is in arguing from particulars to generals, or inductively, that the imperfect nature of our observations vitiates our conclusions. **Bottom—base**. **Go...reckoning**—be taken into account. **Separate spirits**: *Separate* seems to mean here disembodied,—souls that are separated or freed from the bondage of the flesh and are not obliged to derive knowledge only through the few imperfect organs of sense. Cf. "Spirits render'd free," Tennyson's *In Memoriam*, 38.

**Several degrees**: Mark Locke's unquestioning belief in the existence of a hierarchy of angels and higher beings—through all the gradations of which the human soul was sometimes thought destined to pass. For the grounds of this belief, see L's *Essay*, B. IV. ch. XI. Compare Hooker's *Ecclesiastical Polity*, Book I. ch. v. This faith seems more comforting to most minds than the other form of belief in immortality, of which Tennyson says:—

That each, who seems a separate whole  
Should move his rounds, and fusing all  
The skirts of self, again shall fall  
Remerging in the general Soul,  
Is faith as vague as all unsweet;  
Eternal form shall still divide  
The Eternal Soul from all beside.—*In Memoriam*, 47.

**Comprehensive**—Wide in range; less limited. **Collect... relations**: make a synthesis—combine into one whole—all the manifold relations in which these finite beings can be viewed. **A mind**: A new and superfluous nominative (*it*) is introduced in the next line. **So furnished**—Endowed with such powers. **What reason &c.** It is only such a mind that can, with perfect reason, admit the conclusions it forms, as certainly true. Compare Pope's *Essay on man* Ep. I.

**Page 5. Uncertainly** (obsolete)—confusedly. **Come in the hearing**—allow themselves to listen. **Canton out**—Parcel, or

apportion (instead of occupying the whole country, as it were). **A little Goshen**—A limited area (such as was assigned to the Israelites in Egypt. See Book of Genesis, ch 46-7). **Light shines &c** : which they look upon as containing all the opinions and knowledge that are true. A reference to one of the ten plagues, the plague of darkness, which Moses is said to have brought on Egypt through God's favour, to persuade the Pharaoh (king) to let the Israelites depart out of Egypt : "And Moses stretched forth his hand towards heaven; and there was a thick darkness in all the land of Egypt for three days \* \* but all the children of Israel had light in their dwellings." *Exodus*, ch x, 22-3. **Expanse** :—*Expanse* had not become current in Locke's time it would seem. **Give up**...Suppose to be full of ignorance and superstition.

**Pretty traffic**—some little commerce, or intercourse. **Pretty** is almost equiv. to *petty* here. **Correspondents** (used in a wider sense than is current now-a-days) men with whom they exchange views agreeable to both parties. **Wares**—goods. **Great ocean** : such narrow-minded scholars are compared to people carrying on a miserable coasting traffic, not daring to engage in international commerce. **Other parts**—Foreign countries (no longer idiomatic in this sense). **Admired** : for *admirable*—a common use in Eliz. English. Cf. "Admired Miranda ! Indeed the top of admiration." —*Tempest*, iii. 1.

**Mewed up**—closely confined. **Territories** : here 'spheres of thought.' **Not amiss** : Those men may not inappropriately be compared &c. **Marian islands** : a cluster of some 20 islands in the Pacific ocean—only 5 of them inhabited—near the Equator and to the north of New Guinea, so called from the name of the then Queen of Spain. They were discovered in 1521 by the great Portuguese navigator, Magelhaens (or Magellan) who named them the Ladrões, or Thieves' Islands. **Straitness**—scanty nature ; limited command. **Acapulco** : a seaport town of Mexico. **Manilla** : in the Philippine islands. **Notice..life**—The knowledge of various nations which had made great progress in science &c.

**Page 6.** For all that—notwithstanding their blind national vanity. **Naturalists** : the word is now restricted to those versed in Zoology and Botany—knowledge of the animal and vegetable kingdoms of nature. But here Locke uses it in the older and wider sense—'men versed in the knowledge of natural phenomena generally' (such knowledge being contrasted with Metaphysics and Theology.)

**Enlarged**—comprehensive ; not narrow. **Commerce** : this use of the word—synonymous with *intercourse*—is now technical, in law. **Assisted with letters** : whose culture has been helped forward by literature, as well as by freely examining what other men have thought, felt and written, from various points of view.

**Narrow...prospect** : Let not those who love truth—and the whole truth,—willfully shut their eyes to any side of it. **Pre-judge**—condemn beforehand, i. e. be hastily prejudiced against. **Not to show** : proves that we are blind, and not that such notions

are false. **Try...good** : St. Paul, in his first Epistle to the Thessalonians, (ch. V.) says—"Despise not prophecies; prove all things; hold fast that which is good." (Here *prove*=put to proof, try.)

**Employs his pains**—puts himself to much trouble. **Deceived ...mixture**—confound the dross &c. with the gold as equally valuable. **Natural reason**—common sense. **Overweening**—conceited; arrogant. **Want of exercising it**; the phrase would not be idiomatic now. **Full extent...intelligible**: the whole range of things knowable by the intellect or the understanding. *Intelligible* is here used in the literal or philosophical sense, and is contrasted with *sensible*, or knowable through the senses. **Trace it**—apply it (to various cases.)

**Page 7. Outdo**—surpass. **Country gentleman** : For a very interesting account of the country gentlemen or squires of the time, consult Macaulay's History of England, chap. III. **Strain** (*lit* stock or race)—order; class. **Can away** : cannot get on with any society in which the talk is of a higher kind, is not confined to drunken mirth and indecent jests. **Patriot** : The country gentlemen constituted the 'country party,' (corresponding to the Whigs) in opposition to the court party, and were called half contemptuously, the 'Patriots.' **Happy way** :—fitting manner. Locke rarely indulges in this kind of irony. **Improvement**—culture. **Notable**—remarkable (because absurd.) **Bench**—seat of a judge (of the County court). **Quarter-sessions**—sittings of the court held quarterly. The Courts of Quarter Sessions have not, at the present day, to administer the law, or try prisoners. They test accounts, and discuss local matters their functions somewhat corresponding to those of District Boards in Bengal. See Escott's *England : its People, Polity &c.* ch. IV. **Skill**—knowledge (a meaning almost obsolete.) Here it is ignorance that is implied. **Strength...purse**—influence as a wealthy man. **Coffee house gleaner**—one who picks up news and politics at coffee-houses (then the resort of politicians, literary men &c. in London.) **Arrant** (some editions read *errant*)—downright (always used in an unfavourable sense.); may be really called a statesman when compared to a fox-hunting squire. **Conversant &c** : familiar with the Palace &c. (Whitehall being then the chief town residence of the king.)

**Muffled up**—closely wrapped up; with the freedom of his mind lost. **Infallibility** : his belief that the opinions of his own sect can never be wrong. **Equitable**—just. **Indifference**—impartiality. **Unexceptionable**—quite free from blame. **Fallible** : for *fallibility*. **In those** : to be connected with *meets*. **To be said for** : considerations in their favour. **These two** : the narrow-minded bigot and the impartial man. **The mark** : which (truth) is what all say they seek. **Instanced in** : brought forward to illustrate my argument. **Unequally advanced** : some being ignorant, and others well-informed. **I suppose** : the object is *all*



*these men.* Odds—great difference. Different scope—greater or less freedom.

**Page 8. Character he makes**—opinion which he leads other people to form. **Answer that**—come up to these expectations. **To...geographer**: these words would come more appropriately after *that*. **Often sallies**—frequent excursions. *Often* seems to be used here as an adj.:—as it sometimes is, in *Eliz. Eng.* Cf.—“My often rumination wraps me in a humorous sadness”—Jacques in *As you Like it*, IV. 1. **Mill-horse**: “The oil-man’s ox” in the familiar Bengali saying. **Material authors**—writers of the greatest weight or authority. **Infinite work**: will find that it will take so very long, &c. **Latitude**—extent; range. **Scattered parts**—detached fragments of truth (some to be met with among one sect, others among another, &c.) **Widely out-altogether wrong**. **Miss giving**: he will generally be able to show that his thoughts are clear and his knowledge extensive. **Logical chicaner**—skilful sophist; one who tries to mislead by appearing to argue very logically. **Send abroad**—extend far and wide. **All parts**: all the parts or domains of the intellectual world. Cf. “other parts,” p. 5. **Determined**—clear, definite; not vague. **Give beauty**: regard as either admirable, or detestable.

**Page 9. Sec. 4. Brought to the carriage**: trained to behave and speak like a gentleman. **Joints as supple**: so that he has not a natural stiffness, preventing him from bowing elegantly, for instance. **Change their parts**: ask the musician to dance &c. **Members**—parts of the body. **Tumblers**: now usually called *acrobats* (as in a circus.) **Not but that**—though indeed. **Sundry**: various actions or feats done by skilful artizans. **Use and industry**: *use* here means practice.

**Endowments**—gifts. **Narrowly**—closely. **Pleasantness**—agreeable humour. **Raillery**—jests. **Apologues**—fables. **Apposite &c.**—appropriate anecdotes. **Pure nature**—natural gifts only. **That the rather**—all the more so. The phrase is rarely used now-a-days. **Took with**—was admired by.

**Page 10. Poetic vein**—natural turn for poetry. **Westminster Hall**: i.e. the Law-courts. **Genius**—peculiar manner, or quality. **City**—that part of London which is the centre of commerce, banking &c.

**To what purpose**—the drift of my arguments. **Country hedger**—a clownish rustic (*lit* one who makes or repairs fences to fields.) **Handsomely**—elegantly. **Extempore**—on the spur of the moment; at one stroke, as it were. **Coherent**—systematic: not loose.

**Mislaid**—wrongly charged, or attributed. **Making a bargain**—buying things cheap.

**Page 11. Sec. 5. Sounds put**: mere words, used for those ideas. **Of settling**: i.e. the importance of fixing beforehand the

sense in which we use the words. **Another place** : in his great Essay on the Human Understanding, where the Book (viz. B. III.) on the use and abuse of words is one of the most valuable contributions ever made to that subject.

**Many the like** (a phrase no longer current)—many other fallacies of a like nature (*Many* is gram. object of *make*.) **Measures**—means of estimating. **They falling** : this kind of construction is inadmissible now-a-days. **Positive**—fully assured ; over-confident.

**There is not** : If a man is not quite unreasonable, he must admit the above maxims to be unreliable when tested, and such as he would object to in other people.

**Page 12. Conduct them by**—Make their understandings follow. **In earnest**—seriously. **They are persuaded** : They really believe that these principles are sound, though in a similar case they have been forced to admit the contrary. **Intolerable** : The truth is, people can not bear the thought of holding opinions for which they have no reasons to offer ; and others would despise them if they pretended to have no such reasons.

**Entertains**—admits. **Hypothesis** : fundamental principle assumed as true. [All deductive reasoning is essentially hypothetical, starting from some truths taken as true ; and Locke seems to confine himself to such reasoning.] **So much do** : This shows how naturally we are inclined to make a right use &c.

**Concernment**—anxious interest. **Nay, a contradiction** : when holding an opinion of so much importance, it would be intolerably absurd not to be able to say why one holds that and not some other opinion. **And to say** : it would be contrary to experience to say that they do not sincerely believe in these principles and rely on them : to say so would be to deny they are led astray by such principles.

**Page 13. Visible**—quite clear. **Whose case** : those who really want the natural gift of a clear intellect, should not be blamed. **Trace the dependence** : to see how any truth is derived, in a long series of steps, from fundamental truths. **Consequences** : equiv. here to inferences, or processes of reasoning. **And he that** : for the sake of clearness the nom. *he* is repeated before the verb 'should not be.' **No more wonder**—quite as natural. **Bring his mind** : train his mind to trace truths to remote principles. **Grave**—engrave. **Design**—make sketches, or draw plans.

**The most of** : *Most* here stands for 'most part.' 'Most men' is the form used now-a-days. **By rote**—in a mechanical way : according to routine. **That they conclude** : they ignorantly think they have perfect "thought or skill." **It serves their turns**—this imperfect kind of reasoning satisfies them. *Turns* in the plural would not be used now-a-days (in this sense.)

**Succeeds** : here=fails. This neutral meaning of *succeed* (and

*success*) was formerly the usual one. *Prosper* may do as a synonym, as it still occasionally bears this neutral sense. **Cross**—unlucky; untoward. **Default**—fault, or shortcoming; (used of inanimate things only now.) **Traverses**—unlucky accidents.

**Page 14. Speculative truths**—philosophical or theological truths. **Laid together**—compared. **Three particulars**: as of £, s, d.

**Manual operation**—work with the hands. **Address**—skill. **Fashioning**—moulding; adapting. **Betimes**—early. **In train**—in a series (one following another.) **Born...if we please**: we are reasonable by virtue of our birth as human beings, if only we do not lose the gift by want of use.

**Page 15. All rational**: Some early editions give *at all rational*; but that seems to make the assertion too strong—quite unnecessarily so. **(Para 2) Take the thoughts**: If you try to lead a man (whose thoughts have long been confined to one groove) to think on other subjects, you will find him almost an idiot. **Perfect natural**—quite an idiot. **Compass**: all means of guiding themselves. **Nonplus** (*lit* no more)—inability to say or decide anything; standstill. (The phrase is rarely used now-a-days; *Nonplussed* is somewhat more familiar.) **If they give...reasons**—if they yield to the reasons and cease to believe in the maxims. **Think there is**: become perfectly sceptical.

**Page 16. The Americans**: The Red Indians. [This opinion of Locke is erroneous; but in his time no thinker could be expected to appreciate the principle of heredity, which has been developed during the last fifty years. It may also be readily admitted that in some kinds of intelligence, the American Indian is equal, nay superior to Europeans. But it is wrong to suppose that if Red Indians be brought up from infancy exactly like European children, they would not be found inferior in their power of acquiring the arts and sciences of civilized life, though it is quite possible that here and there some exceptional instances may be found.] **Reaches**—high attainments, or proficiency. **Continuing**:—if he had stayed at home, that one would have been quite on a level with the others.

**Young scholars**: Locke had spent several years as a tutor, and had some experience of boys. And his *Thoughts on Education* is still valued as one of the best books of its kind. See Introduction. **Open by degrees**—are gradually unfolded, or developed. **Stick at**—be stopped by; be unable to understand. **Plain way**—what is quite obvious.

**Page 17. Sec. 7. Transfer.....knowledge**: In the next sentence (concluding words “Though in proofs” &c.) and the next para, the author points out the caution with which mathematical reasoning should be applied in departments of thought where the data are of less definite. [There is, however, another

vital difference, which the author does not notice; namely, that in most of the other sciences, great care should be taken in observing and collecting the facts, to which the reasoning is to be applied; whereas in mathematics, the facts are either supplied by other sciences, or are exceedingly simple. Thus the mind trained in mathematical reasoning alone, is but imperfectly prepared to deal with other branches of knowledge.] **Mathematical demonstration**: This is very rigid from L's point of view, for he held that every step in *demonstration* must be taken with a rational perception of its being self-evident: "In every step reason makes in demonstrative knowledge, there is an intuitive knowledge of that agreement or disagreement it seeks with the next intermediate idea which it uses as proof." **Bottoms** (intrans.)—rests, as the fundamental principle. **Coherence**—connection, or dependency. **Settle the judgment**—convince; establish the conclusion. **Demonstrative**—admitting of mathematical proof.

**Laid in balance**—carefully weighed.

**In the schools**—in scholastic philosophy or logic. [The disputing here referred to was that prevalent among the schoolmen in the Middle Ages. And down to comparatively recent times, disputation was a recognized part of the teaching and examinations in the Universities of Oxford and Cambridge; as is shown by the name *Wrangler* still given to those who take the highest place in the Cambridge Mathematical Tripos. Bacon is never tired of exposing the useless and mischievous character of such subtle disputations, and Locke makes further observations on them in Section 43 of this book, and in his greater work. The student will be reminded of the *bichar* among the pandits of this country, which so rarely leads to any satisfactory results, but only produces angry altercations.] **Topical**—having reference to some particular maxim or point. These *topics* were usually stock subjects of dispute argued over and over again. (Greek *topoi*=common places.) **Adjudged**—allotted, or assigned (by an umpire or person of authority.) **Opponent**: used in a limited sense—one who attacks an opinion; the assailant. **All one**—exactly the same. (*All* is an adv.,=altogether.) **Charged**—entered as a debt, or a receipt. **Hundred others**: Two men may have had many transactions; in ascertaining which of them has a balance in his favour, it would be absurd to confine the calculation to only one case of receipt and payment. **Must come.....reckoning**: when so many other views ought to be taken into account. **Presumption**—assuming a thing to be true before examination. **Precipitancy**—rash haste.

**Page 18. Those methinks**: It appears to me that those to whom their ancestors have left enough means, should cultivate their minds, and take some pains to familiarize themselves with various subjects of discourse. **Industry and parts**: It is of course only by superior powers of work or intelligence that people are usually enabled to leave wealth or competence to their children.

**To their backs &c.**—to provide themselves with clothing and food. **Essays**—attempts; serious efforts. **Experimentally**—by actual trial. **Take off that presumption**—cure them of the unduly high opinion. [The first utility of the study of Mathematics to grown-up people, is, according to Locke, to teach humility. Compare what Prof. Blackie says in his *Self-culture*, P. 10, of the utility of studying Metaphysics.] **In this part**: as regards their power of understanding.

**Habitudes**—established relations (obsolete in this sense.) **Out .....reckoning**—altogether aside. (This rigid exclusion of all irrelevant things, is one of the most valuable elements of mathematical training; it develops the faculty of 'abstraction.' **Bacon**, who classes mathematics as a branch of Metaphysics, speaks thus of its value as a mental discipline:—"If the wit be too dull, they sharpen it; if too wandering, they fix it; if too inherent in the sense, they abstract it. So that as tennis is a game of no use in itself, but of great use in respect it maketh a quick eye and a body ready to put itself into all postures; so in the Mathematics, that use which is collateral and intervenient, (i. e., indirect) is no less worthy than that which is principal and intended." *Advancement of Learning*, II. viii.]

**Besides quantity**—other than mathematics. **So easily observed**: in other subjects, it is more difficult to make out what is relevant, and what is not. **In the lump**—in a vague, confused manner.

**Page 19. Summary**—hasty. **Raise...probability**—make the desired conclusion appear probably true. **Straw**—light or unimportant consideration. **Give colour**: make an argument seem reasonable, or sound. *Colourable* is used to mean plausible.

**Asunder**—separately. **Influence it**: affect the conclusion. **Consequences**: See p. 14, l. 3.

**Within the objection**: The objection—that such men have neither time nor means to cultivate their minds,—is not valid. **Compassed**—attained.

**Sec. 8. Mightily lies upon him**—is an important duty of his. **Vacancies**—periods of rest. It is hardly used now in this sense, and *vacation* is used of longer periods. **And had but those** (last line): This last part of the sentence is obscure. The meaning seems to be—'if only men had the assistance of others willing to make them enter the proper path to religious knowledge, according' &c. *Enter* has here a causative force, =teach. "Those who would enter them" are the ministers of religion, or clergymen. This is preferable to taking 'those' to refer to those who 'have other idle hours'—which would make the sentence ungrammatical.

**Page 20. Several**—respective. **The right way** would of course be different in men of different degrees of intelligence; men of strong intellect might profitably enter into a fuller course of such

studies. **Original make**: *make* here means formation, or cast; and *original*=at birth. [Locke had no conception of the principles of heredity, and believed that the faculties of all human beings are the same at birth, and only differ afterwards from great variety in their surroundings, education, callings &c. This opinion was evidently a reaction from the extreme views about the natural inferiority of the lower orders, which were so fashionable in former times, and on which the system of caste has rested in all ages.] **Mean people**: *mean* has here no reference to moral inferiority (as it has now-a-days), but only to low birth or station.—some of the disciples of Christ, as well of other religious leaders, such as Chaitanya, belonged to humble stations in life; Luther was the son of a poor miner, George Fox (founder of the sect of Quakers) was a shoemaker, Bunyan was a tinker.

**Clear...ignorance**—show that men of humble birth are not of necessity grossly ignorant. *Necessity* is here used in the philosophical sense of something certain or unavoidable. **Wearing the name**—though they call themselves Christians. [In all established religions, which have been current for a long time in a country, and in which assent is more or less compulsory, it must happen that a considerable number of professed followers are but nominally such. It is only in a new or persecuted sect, and in times of religious change, that every one professing a creed knows what he is about. This is borne out by what Locke says in the next sentence about the French Protestants, the Huguenots.] **Lately in France**: By revoking, in 1685, the Edict of Nantes which had been issued by Henry IV. of France, and which extended toleration to the persecuted minority of Protestant in that country) Louis XIV. compelled a large number of Huguenots, to leave the country, many of whom came over to England; the rest yielded to the pressure, and began to profess the Catholic faith. For this reason the word *lately* is used.

**Nearest concernment**—most vital interest and importance to them. **Freer fortune**—such means as frees them from the necessity of working hard.

**They were given them**: The antecedent to *they* is *understandings*, which would not require to be used in the plural now-a-days. The sentence means 'even if we conclude that the lower classes must remain sunk in gross ignorance in matters of religion, surely there is no excuse for such ignorance in men of means and education, whose intellects were given to them mainly for guiding them to a knowledge of such matters.' **So few but**: the number of such men is large enough to make us hope &c. **Largest views**...prospect extending over eternity (whereas other kinds of knowledge are concerned with *time*, i. e. this life.)

**Section 9. Ideas**: For Locke's theory of Ideas, see Introduction. **Importune**—solicit; strongly impress. **Lively**—vivid, clear and strong. **Greater store**—a abundance (of impressions through the senses.) **Entertained**—received.

**Page 21. For others :** *viz.* "more abstract ideas." Locke means that there is danger of our minds being too much occupied with knowledge obtained directly through the senses ; the difficulty lies in excluding, not in admitting them. [It should be noticed how completely Locke seems to ignore the importance of training the senses to observe more carefully, and of making the knowledge from this source a part of our mental possessions. See Introduction.] **Moral** as distinguished from *physical*. Those sciences that were concerned with human thought, or human affairs, were all formerly included under *moral science*. **Third Book :** which deals with the use and abuse of words. [The following extracts from Ch. II. of that Book will illustrate the statement in the preceding sentence :—(1) "men stand not often to examine, whether the ideas they, and those they discourse with, have in their minds, be the same....(2) Because men would not be thought to talk barely of their own imaginations, *they often suppose their words to stand also for the reality of things*....Thirdly, because words are many of them learnt before the ideas are known for which they stand ; therefore *some, not only children, but men, speak several words, no otherwise than as parrots do*, only because they have been accustomed to those sounds."]

**But to convince :—**The illustration in this sentence exhibits Locke's views about the nature of knowledge as well as of morality. One can only know that he is under moral obligation to be just, if he understands clearly (1) what obligation is, and what justice is, and (2) the agreement of these two ideas. See Introduction. **And if men do find :** Locke points out the importance of having abstract ideas clearly settled in men's minds. Without that it is utterly impossible to form a correct judgment as to whether certain ideas have agreement, or disagreement ; because ideas cannot be brought directly before the eye and compared ; the only way in which they can be represented to the senses, is by means of sounds (i. e. words) to the ear. **Sensible—**Known through the senses.

**No manner of conformity—**'no similarity in form or nature ; which are merely arbitrary symbols or signs (of the ideas.) This is a point strongly insisted upon by most modern metaphysicians. [In Ch. II. Book III. in Locke's great work, he seems to hold that men voluntarily invented words, which they found very convenient as signs of their ideas. This is inadmissible as a theory of the Origin of Language ; but what he says of words being signs of ideas, "not by any *natural connexion* that there is between particular articulate sounds and certain ideas," is unquestionably true.] **Harbour—**Contain ; *lit.* give shelter to. **Where real Existence :** This qualification is necessary, because there are compound ideas formed in the mind clearly enough, but understood to be without any actual objects in nature corresponding to those ideas : as a golden mountain, a flying man. **Chimeras—**monsters (fire-breathing, fore-part like lions, hind part like dragons &c.) ;

hence, vain or idle fancies. . Locke deals with this point in ch. 30 (of B. III. of his great work,) of *Real and Fantastical Ideas*.

**Page 22. Nobody.....clear**—When any one is charged by another with having prejudices, he simply attacks the prejudices of his opponent, and fancies that he is thus proved to have no prejudices himself. **Not deal fairly**—delude; “cherish prejudices”. **Cataract**...A disease of the eye, in which the pupil seems closed with a whitish substance. The disease may often be cured by a surgical operation, called **couching**, which consists in depressing the crystalline lens. **Who almost...**is there a single person who. **Mote**...a small particle; as of dust. **Beam**: The reference is to Christ's well-known saying in his sermon on the mount: “The hypocrite, cast out first the beam out of thine own eye; and then thou shalt see clearly to cast out the mote out of thy brother's eye.”—*Matthew*, vii 3—5; or *Luke*, vi. 41-2.

**Scrupulous**...Strictly careful.

**Impostor**...Deceiver. **Hoodwinks**...blinds (lit. by covering the eyes); imposes on. **With their eyes**—from their point of view; using their opinions or prejudices, to be guided by. **Self condemned**...wrong by his own admission. **Persuasion**...faith. The word means (i.) the act of persuading others, and (ii.) as here, ‘what one is persuaded or convinced of.’ Sir Thomas Browne however, draws a distinction between *faith* and *persuasion*: “I desire to exercise my faith in the difficultest point; for to credit ordinary and visible objects, is *not faith, but persuasion*.”...Religio Medici. Sec. IX.

**Assent**....**greater**: that he believes only so far as. In ch. XIX. Book IV. of his great work, L. says: “There are very few lovers, of truth for truth's sake, even amongst those who persuade themselves that they are so... There is this unerring mark of it, *viz. the not entertaining any proposition with greater assurance than the proofs it is built upon will warrant*. Whoever goes beyond this measure of assent loves not truth for truth's sake but for some other by-end.”

**Page 23. Profession**...that he declares. **Anticipation**...what is believed *before* any proof has been obtained; presumption. **To rest**: not to be shaken by any doubts. [The words are well chosen. Many people feel it a positive torment to be in a state of doubt,—to have the repose of their minds broken by any damaging facts or arguments. This feeling constitutes the strength of conservatism in every community. Helps says in his *Thoughts in the Cloister and the Crowd*: “The unfortunate Ladurlad did not desire the sleep that for ever fled his weary eyelids, with more earnestness, than most people seek the *deep slumber of a decided opinion*.” And Mill, in his famous *Essay on Liberty* (Ch. II.), says: “The fatal tendency of mankind to leave off thinking about a subject when it is no longer doubtful, is the cause of half their errors.”]

**They be proof or not**: Here *proof*=able to stand a test (as



in *proof-spirit, fire-proof* &c.) **Excass...adherence**—belief which goes further, or is stronger, than is justified by evidence. **In effect**—virtually. **Forward**—rash. **Which, what is it**—and what is this. This use of *which* would not be idiomatic now-a-days. **Qui æquum**: Even if a man believes what is right, he cannot be said to be fair or impartial if he does so without listening to the other side.

**Acquit himself as**—play satisfactorily the part of.

**Preoccupation**—prejudice.

**Sec. 11. Indifferency**—impartiality. **Custom**—(here) prevailing belief.

**Page 24. Propagator**—circulator.

**Sec. 12. As judging**—because he regards such examination. **Whether fewer**: I shall not decide which of the two is rarer—the courage to examine one's cherished views, or the ability to do so. **Surer way**: Explained in the next sentence. **Bantered**—made fun of; befooled.

**Strange to be set about it**: Are no less surprised when told to examine their own minds, as when asked to settle an account from a tradesman's day-book. **Concerned**: where it is a matter of deep importance to believe what is true.

**Page 25. In these...understanding**: Locke here explains what freedom of the understanding is, without which a man cannot be called rational, or indeed be said to possess understanding at all. This freedom is made up of two things: (i) disposition to welcome all truth *as truth*, and not for any other reason; (ii) refusing to acknowledge a reason from any principles till we are convinced, after sufficient examination, that they are sound and well-established. **Conceit**—ill-grounded opinion (a meaning almost out of use now, but the most ordinary meaning in older English.) **Extravagance**—wild flight of the imagination; a piece of folly. **Constraint**—compulsion. **Their own...evidence**: what Locke means by *fancied evidence* is clear from his chapter on "Enthusiasm" in his great work: "They feel the hand of God moving them within, and the impulses of the spirit,.... and what they have a sensible experience of, admits of no doubt, needs no probation..... This is the way of talking of these men; they are sure because they are sure: and their persuasions are right, because they are strong in them. For when what they say is stripped of the metaphor of seeing and feeling, this is all it amounts to;..... whatever they may call it, it is not seeing, but believing"—ch. xix, B. IV.

**The world is apt**: Men who possess such *indifferency*, are supposed to be *indifferent* in the other sense of the word, as to the truth of opinions. At all times, but especially in times of strong faith, people can make no allowances for those who try to see both sides to a question and are not staunch believers in this

or that set of opinions ; they are dubbed trimmers, sceptics, or even atheists.

**Not indifferent which opinion is true**—eager to believe in the truth of some, particular opinion. [This distinction between the two kinds of *indifference* is here very cleverly, almost wittily, pointed out. The 'wish to believe' something is more than half the belief ; it blinds one to whatever goes against the belief.] **And it is visible** : It is quite clear that they have themselves never made any objections to their opinion. **Nor are concerned**—and do not care.

**Page 26. Miscarriages**—False steps ; ways in which men fail to attain truth. **Rectify**—correct. **Business whereof**—the function, or aim of education. [Nothing is more common than for people to take a narrow utilitarian view of education, and ask of what use is this or that subject in the future career of a student ? Most people in this country, even amongst the so-called educated men, are unable to appreciate the value of liberal education in developing the mental powers, and qualifying men to acquire practical knowledge more easily and thoroughly, and to become better citizens. In his *Thoughts concerning Education*, Locke goes into this point more fully. Mill, in his *Inaugural Address at St. Andrews*, expresses this idea very simply and clearly : "Men are men before they are lawyers, or physicians, or merchants or manufacturers ; and if you make them capable and sensible men, they will make themselves capable and sensible lawyers or physicians," by bringing "the light of general culture to illuminate the technicalities of a special pursuit."]

**Well principling**—Properly grounding (a student in knowledge). **Dogmas**—authoritative opinions, or doctrines. **Specious**—plausible ; outwardly attractive or imposing. **Often the cause** : when men have been brought up in mere unreasoning respect for some doctrines, it often happens that they cease to believe anything at all when on coming out into the world they find that those doctrines can not be reasonably held. There is a natural reaction in the minds of such men, from extreme credulity to extreme scepticism ; because they have never been taught to appreciate true reasoning, to believe upon adequate evidence. **Regardless of**—indifferent to.

**Clogs**—impedes ; obstructs the working of. **Excite** : *incite* would be more appropriate now-a-days.

**Section 13.** This section seems to be the only one in this book, in which the importance of drawing right conclusions from facts—or correct induction—is dwelt upon. **Civil**—regarding our rights and duties as members of society. **Benefit...them**—'use to which they are put by the understanding' ; *make a benefit* is not idiomatic now. **Standing**—fixed. **Consequently** : Because men, as rational beings, are guided by their knowledge in matters of conduct.

**Page 27. Assiduous** : To use Pope's words, they are like —

The bookful blockhead, ignorantly read,  
With loads of learned lumber in his head."—*Essay on Criticism*.

**Nothing but history**—a mere string of stories. They do not derive any principles or truths about human character and human progress from history. **Dream on**—go on spending their time uselessly. *Dream* here does not suggest the idea of meditation, but is contrasted with reading to some real use. **Crudities**—food not digested; hence, 'vague and unsound notions.' In this word, the metaphor in *dream on* is continued,—for dreams, especially frightful dreams, are often produced by indigestion, which interferes with sound sleep.

**Materials of knowledge**—things with which knowledge may be built up. [Locke rightly distinguishes between knowledge and mere information. Men often ignorantly admire those whose memories are stored with a vast mass of facts or quotations. But these are generally useless even as materials, unless they are arranged, pigeon-holed so to speak, in the memory, and can be availed of when wanted. And it is only rarely, in a Macaulay or a Gladstone, that a wonderful memory is of this methodical kind.]

**Contrary conduct**: i. e. instead of drawing no conclusions from what they read they are over-eager to rush into such generalisations. **Raise axioms**—build up principles which they call self-evident (but which are often very doubtful.) **Between these**: Here the author points out the right mean between the two extreme courses. What people should do in reading history, is to verify or disprove the important hints suggested to their minds by this or that fact. **Wary induction**—cautious generalisations from facts. **Rhapsody**—a confused series (Gr. *rhapso* to sew and *ode* a song; i. e., a string of poems, or a portion of an epic recited at one time—such reciters being called *rhapsodists*). The word is now generally used to mean 'a wild and rambling composition.'  
**Contrary**—contradictory. **Pudder** (obsol.)—confuse.

**Page 28. Sec. 14. Bias** means *lit* a weight on one side of a bowl (in the old Eng. game of bowling) that makes it move obliquely; hence, a particular bent or inclination of the mind (making it go wrong.) **Possessed with**: which sway their minds. When *possessed* is followed by *with* (and not of) the phrase has always a somewhat unfavourable meaning, and suggests the influence of evil spirits. **Bear no mixture**: compare what Bacon says of such mixture in his *Essay on Truth*. **Rigid**: it cannot be swayed or modified by any desire for other advantages.

**Conforming itself**: Obeying truth, fitting itself to find out and establish truth. **At first hearing**—readily; without hesitation.

**Open defiance**: no one will be guilty of the manifest absurdity of declaring that &c. **Reason to do so**: i. e. *not* to know and think of things as they really are. **That is, in effect**—'Or what means practically the same thing.' Whatever is advantageous to one's own self, one's faith, or party, is regarded as the cause of

God or of the welfare of mankind. Thus men justify, Locke says, their disregard of truth, by phrases that sound well. **Which they purposely do**: The men who misuse their faculties &c. are those who do not let correct ideas enter their minds, and who in all those subjects which they care to study at all, deliberately content themselves with wrong ideas.

**Sec. 15. Very much of kin**: The habit of carefully seeking for arguments to support one's own views, and disregarding the arguments that go against them—is closely related to the habit of not looking at things as they really are.

**Page 29. Debases it**—brings its value to a very low point; sets truth at naught. To *debase* a coin is to lower its value by mixing more alloy with the true metal, or reducing its weight. **Espouse**: take up those opinions that conduce most to their power &c. **Comport**—are consistent; accord. **Lighted upon**—accidentally hit upon. Some editions read *light*; the use of *light* as partic. is met with in Shakespeare's *Pericles*, IV. 2.—"You are *light* (i. e. fallen) into my hands, where you are like to live." **Stumbled**: accidentally fallen upon truth when his sole aim was to advance his worldly interests. [These remarks are especially directly against those who adopt the opinions of that sect which is in power. Such conversions were common enough in the 17th C. but they were always regarded with suspicion.]

**Pro and con**—for and against; on both sides. **Distract**—bewilder; confuse. **Gone farther**: really studied the subject deeply—instead of merely gathering all can be said on either side of a discussion. Only those who have gone deep into a subject, are not liable to have their minds confused by a variety of arguments. **Serve our vanity**: This kind of vanity—viz. the display of versatility—is censured by Bacon in his *Essay, Of Discourse*: "Some in their discourse desire rather commendation of wit, in being able to hold all arguments, than of judgment in discerning what is true; as if were a praise to know what might be *said*, and not what should be *thought*." **Names annexed**: using at the same time precise words to express such clear ideas. **Habitudes**: See Sec. 7, p. 18. **Floating**—vague. **Indetermined**: not clear or settled. **Serve a turn**—help our argument when necessary. **Respects**—connection. **Real knowledge consists**: See Sec. 9, p. 21. **Plausible sophistry**—misleading arguments, which appear sound.

**Retainer**—servant. **Be fain**: be glad to be relieved from what he knows so hazily. **Implicit**: opposed to *explicit* or clear. The word means *lit.* 'within folds'; hence, 'what is dark, or imperfectly known.'

**Page 30. Section 16. Labour-sake**: the modern form is *labour's sake*. **Against nature**: because labour is but a means to an end, not itself the end. This is stated here to show that all attempt to abridge labour is legitimate in itself. The time and energy saved by such means are available for other ends.

**But this whether:** The sentence sounds incomplete; but the meaning is—'Either through laziness or haste, this tendency to abridge labour often misleads the understanding, and makes it' &c. **When testimony of right:** when the matter is not one which ought to be decided by mere witnesses, however reliable. In matters of *fact*, the testimony of respectable witnesses carries irresistible weight; but in matters of *opinion* or reasoning, the mere fact of such and such worthy men holding certain opinions, or regarding certain arguments as strong, proves nothing. *Of right* means 'properly.' **Scientifically instructed**—taught (and convinced (by strict scientific reasoning. **As it were;** as if that single argument had the force of mathematical proof. **Trial of probabilities:** See Sec. 7, p. 17. **Determined by probable topics:** the mind decides upon some ordinary arguments showing a conclusion to be probably true. **Where demonstration:** Of course when a point admits of strict proof, one should seek such proof, and not be content with mere probable reasoning.

**Multiplying variety**—a great number of arguments turning upon mere words, which are frivolous or trifling. **Lost labour:** *Lost* in such phrases means *useless*. **Other way of assent:** viz. believing a thing to be true on the strength of many arguments, chiefly frivolous ones. **Hovers about it:** the mind tries aimlessly to reach truth. **Amused:** There are some minds that do not earnestly love truth, and even delight in doubt—using arguments on either side merely as a sport.

**It is to this.....owing**—'men fail to trace arguments (as they should do) to the true fundamental principles, because of this haste &c. that I have been speaking of.' **Jump to the conclusion**—decide in the rash hurry. (The phrase has become a very familiar one.)

**Page 31. Opiniatry**—Obstinacy or conceit in one's own opinions. Other editions give *opinionatry* and *opiniatry*—the latter being from the corresponding French word. A man unduly attached to his own opinions is now called *opinionated*, or *opinionative*; and from the last the abstract noun is formed by adding *ness* (but rarely used.) **Farthest was about**—'the longest and most round about way'; i. e. it never leads to knowledge. **Connection of the proofs:** knowledge worthy of the name must be reasoned knowledge—not of mere facts or unproved opinions,

**Sec. 17. Desultory**—*lit.* 'leaping from one thing to another'; hence,—rambling, not methodical. The word is used for desultory habits. **Court lady:** a lady of rank (who is admitted into the society of the sovereign.)

**Sec. 19. Universality**—general knowledge of all (or many) subjects. **Taking a taste**—acquiring some insight into (not a smattering.) See next page. [Mill says in his *Inaugural Address*, referring to Archbishop Whateley's refutation of Pope's famous dictum, *A little knowledge is a dangerous thing*:—"An eminent man... has well discriminated between a general knowledge and a super-

ficial knowledge. To have a general knowledge of a subject is to know only its leading truths, but to know these thoroughly, so as to have a true conception of the subject in its great features; leaving the minor details to those who require them for the purposes of their special pursuit. There is no incompatibility between knowing a wide range of subjects up to a certain point, and some one subject with the completeness required by those who make it their principal occupation. It is this combination which gives an enlightened public.....*The amount of knowledge is not to be lightly estimated, that qualifies us for judging to whom we may have recourse for more.*] **Shreds**—rags; loose fragments (such as some learned scientific words, some quotations of detached sayings &c.) **Frippery**—*lit.* cast off clothes; hence, worthless things. **Come amiss to**—be uncongenial or unsuitable to; embarrass. **Was readily furnished**: as if his head was supplied with whatever might be wanted &c. **This is an excellency**: But on the other hand, the possession of real knowledge in most departments of thought is a valuable accomplishment. *Excellence* is the form now always used in this sense (*viz.* 'true superiority'), *excellency* being reserved for special uses, as 'His Excellency the Viceroy';

**Page 32. Common-wealth**—State, or society. **So to the bottom**—as deeply, or thoroughly. **Were ordered**—were conducted systematically. **Great deal farther**: unfortunately, it is the men who have little to do, that generally fail to find time for anything; whereas busy men often contrive to extend their knowledge and efforts to enquiries quite distinct from their particular callings in life. [Against the prevailing ideas about want of time to acquire general knowledge, Mill (whose knowledge was as methodical and well-digested as it was encyclopædic) says, in his *Inaugural Address*: "This question, whether we should be taught the classics, or the sciences, seems to me I confess very like a dispute whether ..... a tailor should make coats or trousers. I can only reply, why not both? Is not any one a poor, maimed, lop-sided fragment of humanity who is deficient in either? Short as life is, and shorter as we make it by the time we waste on things which are neither business, nor meditation, nor pleasure, we are not so badly off that our scholars need be ignorant of the laws and properties of the world they live in, or our scientific men destitute of poetic feeling and artistic cultivation. I am amazed at the limited conception which many educational reformers have formed of a human being's power of acquisition.....I should prefer to see these reformers pointing their attacks against the shameful inefficiency of the schools, public and private, which pretend to teach these two languages, and do not. I should like to hear them denounce the wretched methods of teaching, and the criminal idleness and supineness, which waste the entire boyhood of the pupils..... Let us try what conscientious and intelligent teaching can do, before we presume to decide what cannot be done." He admits, however, that "reforms, worthy of the name, are always slow, and reform even







of governments and churches is not so slow as that of schools ; for there is the great preliminary difficulty of fashioning the instruments, of teaching the teachers.”]

**In hand:** the subject we are dealing with—the advantages of wide and varied culture. **Suppleness**—flexibility ; absence of any stiffness of the mind. **Bents** : *bends* would be used now, *bent* being chiefly used in the figurative sense of ‘inclination’. **Besides, this universal** : ‘there is another evil that may be prevented by this general knowledge, if pursued impartially before the mind has come to love any one subject, by exclusive devotion to it. This evil is very common amongst those who have been trained only in one department of knowledge.’ *Seasoning* is the process by which timber is hardened or dried, so as to be fitted for use ; hence, **seasoned**=brought up, educated. **Tincture**—colouring ; taint. **Ploughing** : The reference is to the metaphysical theory of the Realists, who held that all that was real in nature depended on those general or abstract notions which described their essences. **History of nature**—Natural History, or the sciences describing natural phenomena.\* **Signify nothing** : is sure to be wholly neglected, or despised by him. **Reduce divinity** : trace theological doctrines to the rules he has observed in decomposing and recomposing substances. Thus Sir T. Browne says in his *Religio Medici* (Part I. Sec. 50.) that “some of our chymicks affirm, that, at the last fire all shall be crystallized and reverberated into glass, which is the utmost action of that element.” **Sal**--salt. These three substances were highly prized by the alchemists, and formed the so-called Triad. So even in writing about morality—a subject they knew little about—they drew analogies from the properties of these substances.† The great German Physician Hohenheim—better known as Paracelsus,—takes Salt, Sulphur and Mercury to represent the universal world-law of triplicity ; all corporeal

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\*In speaking of the *idola*, or false notions by which men are deceived, Bacon observes : “The understanding is, by reason of its nature, carried on to abstraction ; and fancies those things to be constant, that are wavering.” And of men fond of particular studies, he says : “Such men if they take to philosophy and universal contemplations, generally corrupt them with their former conceits ; of which we have a signal example in Aristotle, who made his natural philosophy such an absolute slave to his logic, as rendered it contentious, and in a manner, useless.”—*Novum Organum*.

†And as to chemists and their theories, Bacon says : “The tribe of chemists, from a few experiments of the furnace, have run up a fantastical philosophy of very narrow scope.... Such a philosophy appears probable, and in a manner certain, to the men who daily converse with these experiments, and thereby deprave their imagination ; whilst to all others it seems incredible and vain.”—*Novum Organum*, Secs. II. & III. “In the same spirit the musical philosophers of Greece supposed the human soul to be nothing but harmony ; and in modern times the ardent student of astrology, Cardan among others, have attempted to explain by their pretended science the facts of Scripture. In like manner, a wild enthusiast of our own day imagines himself able to explain all the mysteries of nature and revelation, by means of a little moveable triangle. Again, a printer turning preacher represented human life under the allegory of a complete sentence : childhood was comma, youth a semi-colon, manhood a colon, and death a full-stop.” (St. John’s Edition of Locke’s Philosophical Works).

substances contain these principles, as for instance what *smokes* in the wood is mercury, what *burns* sulphur, what *remains in ashes* is salt; and in man, salt appears in the body, sulphur in the soul, and mercury in the spirit—man being partly like, through this triplicity of nature, to three other kinds of beings—the beasts, angels, and elemental spirits. (See Erdmann's *History of Philosophy*, Vol. I. Sec. 241.) **Allegorise**: trace allegorical meanings in passages of the Bible &c. pointing to the *Philosopher's stone* (the imaginary substance capable of turning baser metals into gold, which the old alchemists sought for centuries.) **Mysteries**—Points of faith, or doctrines which cannot be understood by human reason (e. g. the doctrine of the Trinity—the *three in one and one in three*.) **More...excellency**—extraordinary proficiency. **Accommodate** fit in; fancy a close analogy and correspondence to exist between &c. **First week**: the seven days of Creation, as described in the Book of Genesis, which was ascribed to the Jewish leader and prophet Moses. **Notes of music**—the gamut, or scale of seven notes in each octave (Beng. *gram*), denoted by the letters A, B,..... G [This idea was poetically expressed by Dryden in his *Song for St. Cecilia's Day*, beginning—

From harmony, from heavenly harmony,  
The universal Frame began;....  
From harmony to harmony  
Through all the compass of the notes it ran;  
The Diapason closing full in Man."]

**Page 33. Possession**—mastering influence (as of evil spirits.) **Rank**—the relative position and importance (of the different branches of knowledge.) [Thus Bacon speaking of natural philosophy as a pyramid, says "the basis is natural history (description of phenomena); the stage next the basis is physic (explanation of phenomena); the stage next the vertical point is metaphysic; as for the vertical point the summary law of nature, we know not whether man's inquiry can attain unto it."—*Advancement of Learning*, B. II. ch. vii. Locke's Division of the Sciences,—in the concluding chapter of his work—is into the following three—wholly "distinct provinces of the intellectual world":—(1) *Physica*, or the nature of things as they are in themselves, their relations &c.; (2) *Practica*, that which man himself ought to do, for the attainment of any end; (3) the Doctrine of Signs, (of which the most useful is logic) the ways and means whereby the knowledge both (1) and (2) is attained and communicated.] **Just allowance**—proper degree of importance.

**Breeding of the young** would now convey a different meaning. **Already observed**: See Sec. 12, p. 26. ll. 5-10. **But I do not propose**: Locke tells us repeatedly that general knowledge is valuable, not as regards the mere information of various kinds supplied, but for the educational value of such varied culture.

**Sec. 20. Great readers**—those who devour any and every sort of books. **Materials**: See p. 27. **Thinking.....ours**: compare Bacon's well-known advice: "Read not to contradict or confute,

nor to believe and take for granted; nor to find talk and discourse, *but to weigh and consider*"—*Essay L.\* Ruminating kind*: we resemble the class of animals that ruminate or chew the cud (that they have hastily swallowed before.) *Collections*—facts or ideas gathered from books. *Chew them*: probably borrowed from Bacon's *Essay*: "Some books are to be tasted, some to be swallowed, and *some few to be chewed and digested.*" Locke's advice is one-sided in comparison to Bacon's; but the former is speaking of such reading as serves to develop the understanding, and therefore ignores those books which it may be worth while to taste or swallow. *Well pursued*—following each other in good order. *Particulars*—collections of facts, or detached ideas.

**Page 34. Floating**: See p. 27. **By hearsay**—second-hand (to be rejected by the sound scholar as hearsay evidence is rejected in courts of law. **Examen** (obs.)—examination. (In this line put the comma after *that*, instead of before it.) **Every reader's**: Many readers are not prepared to make the examination necessary to discover that—viz. the wrong foundation on which many books rest. **Only hunt for**: want simply to gather arguments and facts in support of the doctrines of the party they are devoted to. (See p. 29.) **Original**: commonly used thus for *origin* in older Eng. cf. "Their frail original"—*Paradise Lost II.* **So that those**: Thus men used to trace arguments in a book to their source, are able at one glance to discover on what the whole argument is founded. **Clue**: the means of finding their way—without losing themselves or getting confused—no matter how complicated and bewildering the mass of opinions may be. **Mizmaze**—labyrinth; mazy, winding path through intricacies. **Entered in**—taught. Cf. "enter them" &c.—page 19 (bottom). **Stand to examine**—stop in every case to examine &c. **Unravel**—disentangle; clear of its intricacies.

**Page 35. Fair and softly**: a common use, *fair* being an adv. =softly or gently. Cf.—

"*Friar.*—\* \* To the chapel let us presently.

*Benedick.*—*Soft and fair, Friar.*"—

*Much Ado about Nothing, V. 4.*

**Rub**—obstacle (nearly obsol.) **Make out.....deduction**—to present in a complete process of reasoning, step after step. **Sensible**—clearly perceived. **Enlivens**—cheers.

\* The following lines of Milton contain a somewhat exaggerated expression of the same view:—

— "Who reads  
Incessantly, and to his reading brings not,  
A spirit and judgment equal or superior....  
Uncertain and unsettled still remains,  
Deep versed in books and shallow in himself,  
Crude or intoxicate, collecting toys  
And trifles for choice matters."—*Paradise Regained, Book IV.*

**Sec. 21. Intermediate**—to be used as steps from the fundamental principles to the required conclusion (resembling the propositions in Euclid used to establish later ones). **Saving the long progression**: sparing the mind the laborious process of going back step by step to the first principles in every argument. **Positions**—opinions. **Depending on them**: which follow from these intermediate principles by a shorter process than from the first principles. **Landmarks**—guiding signs. **Quite beside**—very close to. **First axioms**: It should be observed that in Geometry, for example, the truth of the propositions is to be traced, not merely to the so called axioms, but to the *definitions* as well. **Resolve**—solve; clear up.

**Page 36. Link**: step of the reasoning which connects them with the original axioms &c. **Upon credit**—trusting to the statement of some person of authority. **In them lies**—is possible for them. **Captivate**—enslave: surrender. (The word would hardly be though appropriate now.)

**Sec. 22. Already**: pp. 22-3. **Flatulency** *lit.* windiness—a disorder in the stomach producing gases; hence, conceit of vain-glory. **Does this prejudice**—works the following injury.

**Page 37. Ways or hints**: Even in one's own special study, it is often of advantage to have guidance and information from other branches of study. Compare Prof. Blackie's observation on professional reading and "the mere professional man"—*Self-Culture*, pp. 29-31.

**Sec. 23. Trade or faction**—a means of promoting one's selfish interests, or the interests of one's party. **Secular**—worldly. **Comprehension**—what embraces or includes. **Words of revelation**: in the scriptures. **Display it**: viz knowledge of God. **Characters**—signs; letters. **Abstruse parts**—deeper and more difficult inquiries included in Theology. **Treasures**: viz. the valuable works of great writers on the subject. **Freedom**: from bias or prejudice. **Impositions**—doctrines forced on the beliefs of men. **Wrong use of my understanding**: One has no right to force another to think and believe as he does.

**Sec. 24.** Here we have a signal instance of the want of method often observable in this book. The subject of sec. 22 is taken up again under the same heading, after a little digression. **Permitted**. Even where a man does not go so far as to throw complete discredit on other branches of knowledge. **Indulged in**. Such partiality may lead one to pursue confidently the facts or methods of his favourite study into other studies where such facts or methods are quite out of place. [Thus it is said, that at the present day, men of science, who have achieved grand results in their own department, and acquired authority, go out of their way to discuss confidently various questions of religion &c.] **Lines and diagrams**: Dr. Samuel Clarke, a contemporary of Locke, made use of a geometri-

cal method of proof to establish the existence of God, and other doctrines of natural theology. **Politic**: now used in a sense different from *political* (*viz.* artful)—an instance of the process called *desynonymization* by Trench.

**Page 38. Retired speculations**—philosophical inquiry or contemplation pursued in one's closet (apart from actual operations of nature: what Bacon contemptuously speaks of as "spinning webs out of themselves, like spiders," and as "smelling of the lamp.")

**Run natural philosophy &c.**—rashly introduce into physics the notions &c. (thus bringing in confusion and mere subtleties in the place of true observation and generalization from facts.) [This tendency is illustrated in Boyle's inquiry into the origin of forms and qualities, and is described thus in Bacon's *Nov. Org.* aphorism 66:—"We proceed next to the corrupt matter of contemplation in natural philosophy. When men contemplate nature in her freedom, they meet with different species, or appearances, of things, as animals, vegetables, minerals; and hence readily imagine that there are in nature certain primary forms, which she endeavours to disclose; whilst the other varieties proceed from some impediments or deviations of nature, in her work..... The former fancy led to the notion of primary, or elementary qualities, and the latter that of occult qualities, and specific virtues; both which tend to the empty abridging of contemplations, in which the mind rests and is kept from more solid knowledge." And as regards the help received from the *generalities* of Aristotelian logic in natural science, he goes on to say, in Aphorism 82: "This is only a nominal assistance; for logic does not discover the principles and capital axioms upon which arts are built; but only such as seem agreeable thereto; and when men are curious and earnest with it to procure proofs and discover principles, it refers them to faith, or puts them off with this trite and common answer, that every artist must be believed in his own art."] **Terms of the laboratory**—technical words in chemistry. See p. 32. **Chymistry**: the more usual spelling at one time—now hardly ever used. **Res..administrari**—Things (or affairs) refuse to be badly administered; *i. e.* a bad administration prepares the way for its own overthrow. **Res..intelligi**—Things refuse to be ill understood; *i. e.* the mind revolts from or rejects, what it cannot understand. **Bring things...own**: try preposterously to fit things to the ideas or theories they have already formed. **Pre-conceived**: what are called *a priori*.

**Fantastical**—fanciful, or absurd. **Wild** has nearly the same sense—unreasonable, or extravagant. **Ancients.....or moderns**: The reference is to the great controversy in Locke's time between the champions of the ancients represented by Sir W. Temple, and those of the moderns, which became subsequently narrowed in England into the celebrated dispute concerning the Letters of Phalaris, in which the great scholar Bentley overthrew his antago-

nists (of whom the chief was Boyle.) \* The controversy was burlesqued by Swift in his *Battle of the Books*. **Raving...poetry**—insane admiration for ancient poetry (as the only poetry worth the name.) **Horace**: the great Roman satirist and lyric poet of the Augustan age. The reference is to a long passage in the first Epistle of the Second Book (of his *Epistles* and *Satires*, as Locke says, though indeed most of the former are mildly satirical.) He points out the difficulty of drawing a clear line between the ancient and modern poets, notes some of the characteristics of the former, and protests against the indiscriminating admiration of them then in fashion: "That they should be regarded faultless amazes me; because if a word or a verse here and there in such poems happens not to be ungraceful or inelegant, that serves most unjustly to recommend and sell the whole. I lose my patience, when works are censured, not as wanting in beauty or smoothness, but because they are new." **Not authorised**: which is not supported by the authority of ancient writers, who are looked upon as towering high over the moderns in knowledge. [This belief, which has prevailed in almost every age and country, is not limited to the mental superiority of the ancients; they were regarded as superior in stature and strength also to their degenerate descendants. But from an examination of old armour, skulls, bones &c., still extant, it has been proved that in Europe, at least, there has been no degeneracy during the last thousand years. And similar, though much rarer, remains found in ancient geological strata have shewn that the Pre-historic man (some tens of thousands of years ago) was inferior in stature and brain-capacity to the modern European.] **Like extravagancy**—equal absurdity (on the other side.) **Taken with**—enchanted, or deeply impressed by. **Modern...discoveries**: The researches of the Royal Society, the recent discoveries of Newton, and those of Copernicus, Kepler, Gilbert, (in Magnetism), Harvey (of the circulation of the blood) Galileo and others, are referred to. **Lay by**—Contemptuously set aside.

**Mould**—a kind of dust-like vegetable growth (such as decaying substances, become covered with.) [Bacon says: "Truth is not

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\* This dispute about the comparative merits of the ancient and modern writers arose in France, where Fontenelle and Perrault claimed for the moderns a general superiority over the ancients. Sir William Temple published in 1692 a reply, which produced a great sensation in literary circles, both in England and on the continent, though the essay was full of errors and false reasoning. Among other bold assertions, Temple held that the human race is degenerating, and that in every subject the oldest books are the best,—the fables of Æsop being the best fables, and the Letters of Phalaris the best Letters ever written. This led to a general desire to read those Letters (in Greek) and Charles Boyle of Oxford brought out an Edition,—in the preface of which he made a complaint about the discourtesy of the King's Librarian, Richard Bentley. The latter revenged himself by proving that the Letters of Phalaris were a forgery. A reply came out from Oxford, under the nominal authorship of Boyle, which was regarded as conclusive, till Bentley, after two years' silence, published a most crushing rejoinder, in which he displayed his vast learning.—See Macaulay's *Essay on Sir W. Temple* or De Quincey's *Essay on Bentley*.

to be derived from any thing essentially favourable in the times, but from the light of nature and experience, which is eternal."

**Page 39. Truth is always the same :** Those who recognise the slow progress of the human intelligence from age to age, hold, on the other hand, that through truth in the abstract is certainly immutable,—men are seldom able to attain more than an imperfect view of any great truth ; thus what is truth in one age, may be such simply because, in that stage of the development of man's intelligence, he could not have got beyond it ; but afterwards, he may get such an enlarged view of the same truth, as to outgrow altogether the older conception of it—the latter then ceasing to be the truth. This is especially the case with men's conceptions of the universe, of society, of duty &c. **Delivery**—communication (to others.) **Left a great deal :** In his famous refutation of the fallacy about antiquity being older and wiser than modern times, Bacon says : "As we rightly expect a greater knowledge of things, and a riper judgment from a man of years than from a youth ;.....so might much greater matters be justly expected from the present age—if it but knew its own strength and would put forth and try that strength—than from former times ; as this is the more advanced age of the world enriched with infinite experiments and observations that have been accumulating."—*Novum Organum*, B. I. Sec. VI. **Squeamish**—scrupulous ; easily disgusted (either with what is new, or what is old.) The word comes from A. S. *Swima*=a giddiness, swimming of the head ; the *q* was inserted when the word was confounded with *qualmish*. Compare *s* in *island* or *r* in Beng. *sharshi* (from Eng. *sash*) which was supposed to have something to do with *arshi*, mirror.

**Heterodox**—different from the prevailing or accepted belief. **Will not venture :** some will not dare to seek truths which are not already accepted in their time and country. **Going right :** the easy, comfortable way of thinking is regarded by such men as the right way, and they are quite content to go on thinking like the rest to the end of their days. **Vox populi :** the voice of the people is the voice of God, *However* has here the force of 'although.' *Wherever* is here equivalent to 'that anywhere.' **Nature truths :** or that nature ever communicated her truths through innumerable vulgar channels (the bellowing of cattle, as it were.) **Many headed beast :** an ordinary expression for the unthinking multitude. [In *Coriolanus* (II. 3) a citizen thus explains the sense in which Coriolanus has called the people *the many-headed multitude* : "We have been called so of many ; not that our heads are some brown, some black,.....but that our wits are diversely coloured : and truly I think if all our wits were to issue out of one skull, they would fly east, west, north, south."]  
**Vulgar capacities**—man of a low order of intelligence.

**Page 40. Such nice palates** (ironical)—men who are disgusted with whatever the people in general think. **Mark of the**

**beast** : appears to them degrading or vile. **Lessening**.—a degradation. **Paradoxes**—startling opinions—seemingly contradictory or absurd. **Vent**—utter. **Common reception** :—as were ever favourably received by the people in general. **If there are conveniences**. On the other hand, it would be equally unreasonable to reject any conveniences, simply because people have not yet generally learnt to use them.

**Besides that**—Other than truth. **Something worse** : viz. mischievous folly, or imposture.

**Dedicated to letters**—devoted to literature ; who are always reading books. **Study to reading**. Compare Prof. Blackie's observations on this head. (*Self-culture* pp. 1-2 & 29.)

**Page 41. Natural agents**—things or forces that operate in nature—e. g. fire, air, light, heat &c. This first class of facts are purely natural phenomena. **Patients**—bodies on which forces are brought to bear. **Artificial manner**—in a way especially contrived by man (for certain purposes.)

**Learning** : as distinguished from *knowledge*. **Critical writing** : commentaries are the only class of critical works Locke is here thinking of ; for works treating of the merits of authors and the history of literature cannot be said to deal with the words or phrases used by writers. The latter kind of criticism was indeed not much in vogue in Locke's time. (See Prof. Blackie's remarks on *parasitical* books).

**Comprehend**—include. **Intuition** : i. e. immediate knowledge.

Locke distinguishes as follows between *intuitive* and *demonstrative* knowledge :—“ If we reflect on our own ways of thinking, we shall find that sometimes the mind perceives the agreement or disagreement of two ideas immediately by themselves, without the intervention of any other : and this I think we may call *intuitive knowledge*. For in this the mind is at no pains of proving or examining, but perceives the truth as the eye doth light, only by being directed towards it. Thus the mind perceives that white is not black, that a circle is not a triangle, that three are more than two—.....without the intervention of any other idea. This kind of knowledge is the clearest and most certain that human frailty is capable of ...certainty depends so wholly on this intuition, that in the next degree of knowledge which I call *demonstrative*, this intuition is necessary in all the connexions of the intermediate ideas.”—(*Of the Human Understanding*, B. IV. ch. II.) **Alone knowledge** : knowledge of facts is excluded from knowledge proper. The distinction is somewhat arbitrary, and is certainly not recognised in the ordinary use of the term.

**Wary conduct** : to be guided with greater caution. **Innocent amusements** : the word *innocent* is rather contemptuously used ;—it being implied that men engaged in reading are thereby kept from giving way to unsocial passions (anger malice, cruelty &c.) But it is not meant that indiscriminate reading is quite free from



mischief to the reader himself; for his mind may be narrowed, his tastes vitiated, his faith sapped or his superstition and credulity increased, by bad books.

**Time to eat or sleep:** This class of readers—familiarily called book-worms, formed a larger proportion of the reading public in the first century or so after the revival of learning in Europe, than they have been in later times. \*

**Page 42. Transfused**—poured into another; at once communicated. **Precisely to do:** The men who read much do not trouble themselves even to understand exactly what is affirmed &c. **Bottom**—are founded. **Which consists:** as this knowledge consists or lies in &c. **Perceived:** i. e. intuitive. **So much.....so much** this would not be idiomatic at the present day.

**Abound in citations**—given to quoting largely from different authors. **Build**—rely; establish. **Implicit:** See p. 29, last line.

**Sort of trial**—mode of testing the truth (of opinions.) **They themselves:** viz. writers of authority. This blind deference to other men's opinions is repeatedly condemned by Locke as one of the two greatest sources of error (the other being the use of empty or imperfectly understood words—See p 48.) In a paper written in 1677, he expresses himself strongly on the subject as follows. "If a traveller gets a knowledge of the right way, it is no matter whether he knows the infinite windings, by ways, and turnings, where others have been misled; the knowledge of the right secures him from the wrong, and that is his great business. And so me thinks it is in our intellectual pilgrimage through this world. *It is an idle and useless thing to make it our business to study what have been other men's sentiments in things where reason only is the judge.* Yet who is there that has not opinions planted in him by education time out of mind, which must not be questioned, but are looked upon with reverence, as standards of right and wrong, truth and falsehood; where perhaps those so sacred opinions were but the oracles of the nursery, or the tradition and grave talk of those who pretend to inform our childhood, who receive them from hand to hand without ever examining them?"—Quoted in Dr. Fraser's *Locke*.

**Page 43. Acknowledgments:** of gratitude. **Set them:** presented the proof in so effective a manner, as that in which they have been left to us. **Beholden**—indebted. **Beholding**—an obsolete form of the same word,—is the reading of some editions. **Which is not to run:** To read hurriedly through the discourses &c.....is not to make a right use of them. **Knowing is seeing:** i. e. seeing with the mind's eye,—realising a truth in our own

\* Burton—himself a notable example of this class—gives an interesting description of book-worms, in treating of study as a cause of Melancholia, a fashionable disease in the early part of the 17th C. See *Anatomy of Melancholy*.

minds. **Let him use** : no matter how repeatedly he tells us that the truth of the statement is quite obvious, we must see the truth ourselves and not merely rely on what he says.

**Archimedes**—the great mathematician of Syracuse. **Knowing** : as an adj. the word now generally carries a somewhat bad sense,—‘over sharp or clever.’ Here, as in the above para, it means simply ‘possessed of knowledge.’

**Sec. 25. Still presses**—constantly urges (the mind.) **Catches at**—is eager to attain. **Rides post**—rushes with great speed. *Post* is an adv. = by changing horses at every post or station (so as always to have a fresh horse.)

**Page 44. Savannahs**—prairies ; treeless grassy plains. **Buckle to it**—earnestly try to understand it. **Stick upon** : *stick to* is more idiomatic now. **Nicely**—over-subtle point, or distinctions. **Mysteries**—deep secrets ; hidden truths. **Obviousness or difficulty** : Many people fail to appreciate any truth which is not difficult to understand or find, and on the other hand over-estimate what is obscure—proceeding on the false principle that “muddy waters are deep.” Compare Bacon’s words about “truths seen at half-lights” &c. in his opening Essay.

**Own conduct** : to be guided by the ‘bent’ of the mind (and not by any rules.) **Running too fast** : This is called hasty or imperfect Induction. **Hardly to be supported** : is very difficult for such theories to resist the attacks of opponents.

**Page 45. Counterfeit** : false generalizations—which are like artificial diamonds, or paste. For “severe security” read “severe scrutiny.” **Already remarked** : p. 27. **Make such observations** : arrive at conclusions after examining one or two particulars only. **Everything an observation** : *i. e.* “pick up and examine every pebble.” (See preceding page.) **Observation** here = object of observation. [This is one way of taking the passage, and it fits best with what goes immediately before. But it is also possible to take *observation* in this sentence to mean generalization,—to *make everything* &c. implying undue haste.] **Extremes on both sides** : *viz.* too hasty, and too minute observation—the errors pointed out in this para, and in the preceding para.

**Sec. 26. Anticipation**—taking hold of an opinion before proofs have been examined ; premature judgment. **Whether it be** : Take the sentence in this order : “This is visible.....possess them ; whether it be.....or else.....hold fast ; they (*i. e.* many men) are often as fond” supply the words—*of their first conceptions* as “of their first-born, and will...entertained.” **Whether it : it stands for the reason**—*viz.* “that many men give &c.” **Brings the first light** : ‘introduces them to a new world of thought, or of facts.’ Men who have this “love,” have been called “men of the first impression”, in contrast to “men of the last impression” who are so weak as to be of the opinion they have last heard. See next section. **Or else** : ‘Secondly the reason

may be that people readily accept whatever looks like knowledge, and whether it is really so or not, cling to it. **Visible**—clearly true. **They are often**: such men seem to love the ideas they have first adopted as foolishly as parents often love the eldest child. **Recede from**—retire from; give up. **Rather stiffness**: *Firmness* being praiseworthy, the author prefers to use *stiffness* i. e. obstinacy, want of pliancy. **Submission to prejudice**. See p. 28, sec. 10. **Homage paid**: Too high a tribute or honor to the notions already occupying their minds.

**Page 46. But what**:—we show reverence for the first opinion we accidentally seize upon, be it true or false. **Preposterous**—absurd; perverted. **This can never... till**: Such perversion of the intellect can lead to true knowledge only if &c. **Whose business**: It being the function of our understanding to recognize and follow what is true in nature. **Opiniatry**—obstinacy. See note on the word, sec. 16, p. 31. *That* refers to "what it finds .... without"—i. e. objective truth. **And make**: *And* here introduces an explanatory clause. **Comply**: agree with what the understanding has rashly concluded to be true. **Fancy**—foolishly imaging to be true. **Keep**: go on first the same. **Habitude**—customary relations; associations. **Correspondences**—agreement.

**Sec 27. Resignation**—surrendering one's judgment (and not *will*—as the word usually means). **Contrary**: There are men who go to the other extreme—equally dangerous—of assenting thoughtlessly to the last &c. **Chameleon**—a kind of lizard that tries to conceal itself by assuming the colour of the surrounding objects; hence the animal is a symbol of versatility; and the word is used of one who is ready to change his views or behaviour according to circumstances. **No rule**—does not by any means decide whether they are right. **Draw cuts**: decide by lottery. *Draw lots* is the current phrase now. **And by their testimony**:—whether an opinion be quite new or familiar, one should always be ready to hold it or give it up, according as it is supported or disproved by sound reasons. **Suffrage**—votes; voice or permission. **Sec. 28. Put to a stress**—Strained; subjected to a trial. **Quid valeant**: 'What your strength is equal to, and what it is too weak to support.' The Roman poet Horace advises authors to choose subjects suited to their abilities.

**Page 47. Balk**—baffle. **Unaptness**—unfitness. **Ever after**: This is the reason why many promising children disappoint the hopes formed of them; by unwisely straining their powers too early, they are incapacitated from close thought ever after, or at least acquire a dislike to study very hard to get over. The effect of insisting on long hours of study—especially at night—is often very disastrous. But parents, especially those who have themselves been but imperfectly educated, have very exaggerated ideas as to the amount of time that can profitably be devoted to study in early years. **Cracked**—over-strained. **Tenderness**—feeling of soreness; liability to be easily hurt. **Sprain**—injury to a

muscle or ligament. **Robust**—vigorous (now only used of a person or his constitution.) **So it fares**: The same thing happens to the mind. **Jaded**—overworked; weakened. **Checks at**—resists. **Hardly**—with difficulty. The adverb is now only used to mean *scarcely*. **Insensible**—very slow (so as not to be felt.) **Constancy**—continuous devotion. **Begins with the calf**: a current proverb—meaning that even impossibilities are made possible by gradual efforts. **Prejudice**—injury. **Roundly**—smoothly; straight on (a very common use of the word in Eliz. English.) **Abstruse**—deep and hard. **Yet this must not**. Yet one must not, on the other hand, become so unwilling to face difficulties, as to wander in a lazy helpless way about simple matters (instead of grappling or attacking them at once.)

**Page 48. Recumbency**—lying posture; want of active inquiring spirit. **Danger to rest**: *Of resting* is the idiom nowadays. **Reconcile himself to**—submit or accustom himself to. **Tumbling**—turning over and over; examining from every point of view. **Retired**—hidden; deep.

**Overruling**—completely swaying their minds. The reference is particularly to Aristotelian logic. **Believers**: In order to enter fully into the spirit of any teaching, there must be a conviction that the study is worth all the pains bestowed upon it. **That dignity**: the high rank of axioms; continue to be regarded as unquestionable truths. **Think it sufficient**: who when they go wrong, justify their course by the authority of those rules,—a course that has been taken by so many before them.

**Sec. 29. Another place**: Book III. ch. 10 of his great Essay.\* **Upon this reflection**—bearing this in mind. **Authorized**—sanctioned. **Language of the schools**: Terms used by the schoolmen. Locke is thinking particularly of *Innate ideas*—the existence of which he did his best to disprove. **Frame**—form in his mind. **Affirmed**: applied to the mere unmeaning sound of the word. **Articulated air**—breath uttered through the mouth: *flatus vocis*. [In the following important passage from a paper written in 1677 (quoted in Dr. Fraser's *Locke*), Locke expresses himself very strongly on this source of error—which it was one of the great objects of his life to expose:—"First to be guarded against is all that maze of words and phrases which have been invented and employed only to instruct and amuse people in the art of disputing, which will be found when looked into to have little or no meaning:—and with this kind of stuff the logics, physics, ethics, metaphysics and divinity of the schools are thought

\* In that chapter Locke considers the following abuses of words: (1) Use of words without any, or without clear ideas, occasioned by learning names before the ideas they belong to; (2) "Unsteady application of words"; (3) affected obscurity by wrong application—often called *subtlety* in logic and disputation; (4) taking words for things; (5) setting them for what they cannot signify; (6) a supposition that words have a certain and evident signification; (7) use of figures of speech—carrying analogy to a misleading excess.

by some to be too much filled. *This, I am sure, that where we have distinctions without finding a difference in things; where we make variety of phrases, or think we furnish ourselves with arguments without a progress in the real knowledge of things, we only fill our heads with empty sounds.* Words are of no value or use but as they are the signs of things; when they stand for nothing they are less than ciphers,—for instead of augmenting the value of those they are joined with, they lessen and make it nothing; and where they have not a clear distinct signification, they \* \* confound our meaning.”]

**Page 49. Entities**—things existing. **It will not perhaps:** If I mention *substantial forms* &c. as instances of terms which may well be suspected to be without any real meaning, many people will perhaps raise objections. **Substantial forms:** The internal reality, of which any class of things was the outward manifestation was called, in Metaphysics, the Form or Archetype of such things. [The theory is traced to Plato, who “assumed for every class of existence an idea” (*Schwegler, Hist. of Philosophy*) though the Platonic theory of Ideas underwent various modifications. Locke was one of the earliest modern philosophers who rejected what still remained of that theory in the current language of philosophy. He speaks of the various classes of substances as *nothing but the ranking of them under distinct names, according to the complex ideas they embody and not according to precise, distinct, real essences in them.* He thus ridicules the old theory in which the *accidents* (used of the sensible qualities of things) were supposed to inhere in some real substance or substratum: “Had the poor Indian philosopher (who imagined that the earth also wanted something to bear it up) but thought of this word *substance*, he needed not to have been at the trouble to find an elephant to support it, and a tortoise to support his elephant; the word *substance* would have done it effectually. \* \* Whatever a learned man may do here, an intelligent American would scarcely take it for a satisfactory account, if he should be told that a *pillar* is a thing supported by a basis, and a basis something that supported a pillar. \* \* \* Were the Latin words *inherentia* and *substantia* put into the plain English ones and called *sticking on* and *underpropping*, they would better ‘.....show of what use they are in deciding questions in philosophy.’”—*H. Unders.*, Bk. II. Ch. 13.]

**Intentional species:** the supposed images of objects and the means of making those objects perceived. *Species* has the literal meaning of *form* or *shape* (such shapes being supposed, in the old theory of perception, to enter the mind and cause perception of the objects they emanated from,—being themselves neither material nor purely spiritual essences.) [This *species* was sometimes called a *tertium quid*, or ‘third something’; and the theory of perception postulating it is called *mediate* or *representative*. Most modern English philosophers—of whom Locke was one of the foremost—reject the theory.] **Insignificant** here=unmeaning; i. e., not

having any clear ideas to be represented. **Etch out**—**eke out**: fill in what may be wanting to. **Conceptions from things**: and not from their imagination. **The supposing**: assuming that the words signify some real things in nature. **Answering**: *answering to* is the phrase used now. **Know not when**: *i. e.* it should never be considered at all. Whatever strikes us as conveying no clear ideas, we should never trouble our heads about. **Where men.....explain them**: Even the profoundest thinker, can make himself intelligible, if he deals with what he has himself clearly grasped, however remote his subject may be from ordinary notions. [Locke had no respect for writers who affected to be deep when they were really in the dark themselves—when their own thoughts were muddy or hazy.] **To what purpose**: It must be useless to seek to understand the thoughts of a writer who has either no thoughts, or no clear thoughts. **Let us beat**: no matter how long we try hard to understand the meaning of the term. **Manners of them**—the ways in which nature works. **To obtrude terms..... understandings**—It is only a trick used by men vain of their learning, for concealing a defect &c.—when we find them thrusting in words conveying no distinct thoughts, as if such words had some deep meaning. **Hypothesis**—general principle assumed as the basis of reasoning. See sec. 6, p. 12. **Not made to conceal**: Goldsmith seems to have borrowed from this the paradox that Language was given to man to conceal his thoughts. See no. III. of the *Bee*. The saying is commonly, but erroneously, attributed to the French wit, Talleyrand.

**Page 50. Sec. 30. Wandering**—allowing the mind to entertain irrelevant thoughts. want of fixed attention on any point. **Flux**—flow. **Former part**: sec. 9. **That so**: by directing the succession of our thoughts. **Come in view**: *into view* is more usual now. **Pertinent**—relevant. **We are upon**—which we are trying to make. **Foreign**—not pertaining to the inquiry. **Great differences**: It is because some men allow irrelevant ideas to come in, that they cannot advance so far in their inquiries, nor make such valuable discoveries, as others who are more careful, though not naturally superior in intelligence. **Straggling**—roving about. **Presently**: There is a shade of difference between the meaning—*i. e.* 'at once',—and the ordinary meaning now—'a little while after.' **In the train**—the successive ideas. **Reconcile and inure** (nom. "to bring back &c.")—make the effort of attention easy and a matter of habit with them.

**Page 51. Rougher methods**: the old Busbyean system—of freely using the rod to stimulate the diligence of boys—was then in full force. Locke was among the first to protest against the belief that neither discipline nor instruction was possible in a school without the use of such methods. See Introduction. **Would promote**—are intended to improve.

**Sec. 31. Distinction**: As explained below. Locke makes *distinction* natural, and *division* artificial (as in *Division by Dichotomy*.)

**Puzzle and confound** : As Bacon observes, *He that doth not divide will never enter well into business, and he that divideth too much will never come out of it clearly.* (Essay Of Dispatch.) **Argues**—proves. **Run us** : To divide too much would lead us to individuals (instead of *classes*) if we go far enough. **Differences** : *Differentiate* is the verb now used. **Under the consideration** i. e. when regarded as agreeing in some points. **Entity**—what is in existence. **As general as it is**—though it is so very general or widely applicable. **Branch** : more usually *transitive*. **Nothing more opposite** : The art of drawing minute shades of distinction and inventing words to indicate such shades is very different from contemplating things as they are ; for these invented words are used at haphazard, are wanting in any distinct ideas, and serve simply to encourage idle disputes &c. **Verbal distinction &c.** : commonly called “a distinction without a difference.”

**Page 52. Will bear**—will admit of. **Danger of this** : from *this* would be more idiomatic now. **Fence against** : guard against the perplexities arising from ambiguous terms, in which fallacies so often lurk. **Multiplied** : artificial use of a great many distinctive terms by Schoolmen. **More than probable**—almost certain. Compare p. 49. **Crumbled** : divided into minute over-subtle distinctions. **Boundaries** : It is difficult to point out the exact limits within which we should confine ourselves, in order to avoid the extremes on both sides—viz. using *too few* or *too many* divisions. **Criticism**—the work of commentators, or annotators. **Fend**—ward off the attacks of others. *Fend off* is the usual phrase now. **Learning distinct &c.** See p. 41. **Helps nothing** : This is too strong an assertion, hardly tenable.

**Page 53. Opponent**—‘assailant’ ; for this narrow meaning of the word, see p. 87. **Involve**—entrap (by making him admit something.) **Doubtfulness**—vagueness. **This is expected** : viz. that such an attempt to entrap him in his unguarded admissions will be made. **Play**—game ; tactics. **Nor can be indeed** : And where one triumphs in a debate not by truth &c. but by skilful fencing with words, one cannot go too far in drawing subtle distinctions. (Locke repeatedly shows his contempt for such disputations.) **Captiously**—so as to ensnare or perplex (L. *captio*=deceit, from *capio*=seize.) *Captious* has a much lighter meaning now—‘disposed to find fault.’ **Scholarship**—show of learning (not *knowledge*.) **All acuteness &c.**—have looked upon this art of making subtle distinctions as the only proof of intelligence.

**Rule for this** : i. e. for avoiding such extravagance. **Will be able both** : Here *both* connects “able to discern” &c. and “able to apply” &c. (below.) **Penury of words**—poverty of language. **Distinguishing terms** : As Locke himself does in treating of *simple ideas, mixed modes, secondary qualities* &c. where *simple mixed* &c. are ‘distinguishing terms.’ He speaks of the *imperfection of words* in his chapter ix. with that heading in Bk. III. of the *Human Und.* **That answer**—i. e. answer to, or correspond with. **Are**

**pertinent** : these distinguishing terms are properly brought in. [Like many other parts of this book, this section is full of repetitions.] **Measure** : means of deciding whether the distinctions are needed or not.

**Page 54. Acuteness** : the mere fact that a distinction shows sharpness of intellect, or that it is found in an eminent writer, is no proof of its propriety. **Will find only** : which (measure) he will find &c.

**Aptness** : readiness to confound together what only seem to have resemblance. **Other side** : a fault of the contrary kind to that of drawing too many distinctions.

**Sec. 32. Another near of kin** : another fault or defect of the mind closely connected with the above. **Run...smiles**—eagerly seek analogies, or fanciful resemblances. Locke himself was subject to this weakness. Hallam notices his “fondness for analogical parallels, which much more frequently obscure a philosophical theorem than sped any light upon it.” See Introduction. **Fail in some part** : the analogy being imperfect, is sure to break down in some points : “no simile ever goes on all fours” as has been well said. **Have the way** : are able readily to make other people share their thoughts. **Easy rate** : without the expenditure of deep thought, or close attention. **Go for** : pass for, are regarded as, the only clear thinkers. **Correspondence being concluded**—when the points of analogy are fully brought out. **Elucidate**—throw light on ; clear up.

**Page 55. Decry**—condemn. **This one rule** : see next sentence—to observe whether &c. The rule is, that such similes &c. are permissible when used as ornaments, or as conveniently illustrating some aspect only of the subject,—not when used as arguments to establish some new truths. **Representations**—images, or figurative language. They are called *borrowed* because not properly belonging to the subject, but drawn from other matters (as when political affairs are spoken of in the language of medical science). **By way of accommodation**—simply for the sake of convenience (not being put forward as exactly applicable.) **Bearing some proportion**—not altogether inadequate, or inapplicable. **Allusive**—serving to illustrate (by reference to ideas of another kind) : suggestive. **Set it off**—adorn or illustrate it. **Are...penetrated** : have penetrated would be more idiomatic at the present day.

**Sec. 33.** Compare sec. 10, p. 23. **Degrees of it** : i. e. more or less guarded or qualified assent. In his chapter on *Degrees of Assent* (B. IV., Ch. XVI., *Human Und.*), Locke begins with the maxim that “our assent ought to be regulated by the grounds of probability”—such probability being either of matters of fact or speculation. The *Degrees* particularly mentioned are (i) Confidence or confident belief, (ii) Assurance approaching to knowledge, (iii) the highest certainty. **Admit of certainty** (this phrase would now mean ‘may be regarded as certain’)—believe a thing to be



unquestionably true. **Want not** : hardly ever used now in this sense ('are not wanting.')

**Page 56. Novice**—Beginner. **Discerning sight**—power of clear observation. **Even...persuasion** : See p. 29, where the author censures the practice of collecting arguments *pro* and *con* for purposes of empty disputation.

**Usurp it** : wrongfully dethrone our judgment. **Studies but** : fancy is bent solely upon flattering our vanity and thus deceiving the understanding. **Court dresser**—fashionable dress-maker (who pretends to make even the old and ugly look beautiful by means of new appropriate dresses.) **Subservient**—slavishly devoted. **Mind to believe** : see the observations in secs. 10, 11 and 34. It seems too much, however, to expect that people should systematically abstain from all wish to believe anything, before engaging in an inquiry. See Introduction p. xxii, for a criticism of this view. **Not far from believing** : It is well known that people work themselves into a belief, and harden themselves in it, by merely trying repeatedly to convince others. Even a false story, at first told to others for fun or out of vanity, comes, after several repetitions, to be believed in by the story-teller himself. **No great odds**—not much difference ; pretty much the same thing. **Shall be right**—is sure to be regarded as true.

**Sec. 34.** A section with the same heading as sec. 11 (q. v.) **Attestation**—convincing proof (*lit.* what is solemnly sworn to.)

**Page 57. Which being perhaps** : though "they that do thus" are few. (It is not allowable at the present day to begin a sentence with a *pendent clause* of this kind.) *Which* was often used formerly for rational creatures. **Put them upon** : set them a-thinking. **Receptacle** : Cf. "Warehouse of other men's lumber." **Evidenced in themselves**—the satisfactory proofs of which they have themselves examined. **Capable to be : of being** would now be used. **We fail them** : We fall into error not so much because our faculties are imperfect, but because we do not use them properly. **Born to orthodoxy** : When men adopt a different method (*i. e.* do not confine their assent to what has been proved to them) they are all destined to follow the prevailing opinion. *Orthodoxy* means 'properly 'true opinion' ; but Locke here recognises the view which is expressed in Warburton's well-known saying, "Orthodoxy is my doxy, heterodoxy is your doxy." **Imbibe**—*lit.* drink in ; adopt without any thought.

**Page 58. Local truths**—what are held to be true in any particular place. **What one &c.**—Did even one per cent. of fanatics ever examine the doctrines so obstinately held ? **Lukewarmness**—want of zeal. **Apostasy**—falling into error. (*To suppose and to go about* are in apposition with *It*, which begins the sentence *Tendency* is gov. by *of*.) **Fierce for positions**—violent in holding opinions. **Concernment**—importance ; moment (*viz.* matters of

religion.) **Short and easy**: used contemptuously. **In vogue**—prevailing. **Accounted**: regarded as an absurd singularity, or what is worse, a love of error, a heresy. **Warier sceptics**—makes those who are more cautious doubt everything. The reaction against extreme credulity generally takes the shape of scepticism, as Locke points out more than once (see sec. 12, p. 26—"turn perfect sceptics" &c.) **Break from it**: those who free themselves from the custom (of accepting the prevailing opinions without question) are liable to be persecuted as heretics. **Possess together**: it is only in a small portion of the earth's surface, that the prevailing opinion there can be said to be the true one. **Last alone**: i. e. orthodoxy (which prevails everywhere—for which ever opinion happens to be current is called orthodoxy.) **Good luck** is ironical. **Infallible**: as it calls itself. There is perhaps a special reference to the Roman Catholics, who attribute infallibility to the Pope: but all believers in established creeds claim to be absolutely free from error. See foot-note, extract from Schopenhauer, notes to sec. 41. **Take place**—obtain: prevail. **Prescribe**—lay down the law (as to what shall be right.) **Several**: repeatedly used in this sense—"various". **Declare**: i. e. let us judge from the various opinions prevailing in different countries—many of which are absurdly false. **No fence**—no way of guarding against. [This view is very powerfully advocated in Milton's *Areopagitica* and Mill's *Essay on Liberty*.]

**Page 59. Clapped on**—fastened, or imposed on them.

**Sec. 35. Nearer to it**—more likely to reach the truth. **Ungrounded**—not based on evidence, or sound arguments. **Danger to go**: i. e. 'of going.' **Under the conduct**: i. e. 'guidance' (as in the title of this work). **A hundred to one**: a hundred chances (in favour of their being misled) to one chance (against &c.); i. e. 'extremely likely.'

**Embrace for truth**—accept as true. **Recover**—restore to reason: cure him of error. (His case is truly desperate.)

**Does yet at least**: Commits this one error,—viz. of taking one side or joining one party to which he adheres till forced to abandon it. [His freedom or impartiality in examining &c. consists in his being ready to give up what he finds untenable; but as he does take a particular side, he runs the danger of being biased. This is Locke's opinion; but he seems to go too far in demanding that a man should not take up, even provisionally, any definite opinions before full examination.] **Physic**—the medical science (now limited to *purgatives*, but often used formerly in a still wider sense,—for physics, or 'knowledge of external nature.')

**Page 60. Dogmatists**—men with certain theories, which they lay down authoritatively. (Homœopaths, with their principle that 'like cures like'—*similia similibus curantur*—may be called Dogmatists in this sense.) Here the term has a special reference to the school of physicians that pretended to follow the principles of Hippocrates the father of Greek medicine, and what could be deduced by reasoning from those principles. **Methodists**: (now used

only of a sect of Christians) the name given to a comparatively new school of physicians who professed to follow a special method of treatment. **Chymists**: the physicians who guided themselves rather by the known properties of drugs, than by theories concerning the body; they made elaborate compounds formed of various substances—a prescription sometimes naming fifty ingredients. **Hippocrates**: of Cos. who flourished in the 5th century B. C. **Any party**: viz. the Dogmatists. **Wire drawn**—spun out; deduced ingeniously various conclusions from. [It was by this method of freely interpreting and elaborating the text of old works that knowledge of every kind used to be advanced in former times—especially in India; and thus the necessity of reform and change was reconciled with an almost superstitious veneration for standard works.] **To their own sense**—to fit in with what they thought the correct meaning. **Tincture where of**: and when my views are coloured in that way. **Unprepossessed**—not prejudiced in favour of a particular opinion. **Doctors**: here we see the word in its transition or passage from the older meaning ('teacher') to its most familiar sense at the present day ('physician.') **Chime that way**—agree, or fall in, with the views of that sect. **Strained**—unnatural; forced. **Uncouth**—strange; or clumsy. **None**: i. e. no signification (because words are arbitrary symbols.) **Visibly so**—obviously true. **Put.....ignorance**: assume the attitude of one who knows nothing of the subject.

**Sec. 36. State the question**: This is a matter of considerable importance; for a great deal of empty dispute might be avoided, if at the outset, the real point at issue be correctly stated.

**Page 61. Sec. 37. Abstract**: (past part.) quite apart from; without any reference to. **His apprehension**: the method most suited to what he understands of the nature of the thing. **Resolution**—solution; definite conclusion. **He has time for**: This point has already been touched upon on pp. 17-20, as well as elsewhere. **Provision for life**: Cf.—"constant drudgery to their backs and their bellies" (p. 18.) **No excuse**: Cf. "This excuses not those of a freer fortune and education" &c. (p. 20.) **Oscitancy**—(lit. yawning) drowsiness, or sluggishness (of the mind.) **Expected of him**: See p. 8, from the top.

**Sec. 38. Presumption**—over-confidence, or unduly high opinion of our own intelligence, knowledge &c. Compare the remarks on pp. 6 & 13-5. **Distempers**—diseases. **Epidemic**—widely prevalent. **Genius**: used in a wide sense—"bent of the mind." **Idiosyncrasy**—peculiar way of thinking or feeling. **Fortunatus's purse**: which was inexhaustible. The reference is to a well known story—the hero of which was favoured by Fortune, who gave him the purse in question. **Native riches**—the mental wealth with which they are endowed by nature. **Were best**: it would be best for such men &c. *Had best* is preferable now. **Stress**—contest; struggle. **Skilful** (here)—those who know.

**Superficies**—surface; external qualities.

**Page 62. Stones and timber** : an instance of Locke's fondness for analogies. **File**—building. **Intellectual world**—all that can be known by the human faculties. **Without us** : i. e. in the nature of the things themselves. **Piecemeal**—in separate fragments. **Set it up**—build up the fabric of knowledge (within our minds.)

**Sec. 39. Despond**—despair (of acquiring true knowledge.) **Viresque** : 'And acquires strength by her very motion' (said of Rumour, in Virgil's *Æneid*, B. IV., who is spoken of as flourishing by activity.)

**Dum putant** : 'When they think they are about to conquer, they do conquer. **Of kin to**—closely connected with. **In gross**—as a whole.

**Page 63. Spectres**—terrific monsters. **Raises** : To raise spectres or spirits is to summon them by incantations (*mantras*) or the Black Art. **In a huddle** (obsolete phrase)—huddled, or jumbled together. **Faintly**—in a weak or spiritless way. **Remove** : now usually transitive. **Hideous giants** : Things appear much larger than they really are when seen through a mist; the reason being, that we estimate distance by the comparative distinctness of the objects, and estimate the real size according to the supposed distance and apparent magnitude; and in a fog the indistinctness leads us to exaggerate first the distance and then the size of objects, though we are not aware of the process. **Reduce.....parts** : A difficulty broken in two is already more than half solved. [But those who are frightened by "a remote and confused view" of a subject, are not likely to enter into it even so far as to break it up into parts, or to imagine that they are capable of doing so.]

**Amused himself... raising**—indulged foolishly in apprehensions as to the difficulties of the subject which were purely imaginary. **Bugbears**—empty terrors. **Excite our vigour**—lead us actively to exert our powers. **Enervate &c.**—weaken our power or inclination to work hard. **Be indeed the next** : This advice is indeed sound; but in practice, a man wants the guidance of another who is well-versed in the subject, as to what successive steps he should take to master the subject easily.

**Page 64. It will hold** : the understanding will keep firm possession of what it acquires thus gradually. This is strongest argument against *cramming*.

**Disentangle**—unravel; free the parts from being confusedly mixed up together. **Ado**—trouble or difficulty. **In effect**—virtually; after all.

**Sec. 40. Analogy**—agreement as to certain points in things belonging to different classes of existence. Here the word seems to mean argument from analogy, or the recognition of it.

**Page 65. Keep ourselves** : Locke seems to adopt too rigorous a method of arguing from analogy. In fact, when the argument does not go beyond the points of resemblance, it is hardly analogi-

cal in the full sense of the term—*viz.* presuming agreement in some point from known agreement in certain other points. **Oil of Vitriol**—sulphuric acid. **Spirit of nitre**—nitric acid. **Spirit of Vinegar**—acetic acid. **Trial**.....justified: It should be borne in mind, that Locke is not speaking of ordinary experiments—as those in a laboratory,—but of trying the efficacy of drugs on the human constitution—a trial only justified when the effect may be anticipated with confidence on good grounds. He would, we may presume, have been ready to admit that in an experiment for purely scientific purposes, one may be justified in proceeding much further.\*

**Sec. 41. Association of ideas**—such connection between two or more ideas, that one tends to suggest or recall the others to the mind. [This important principle or Law of Association has given rise in England to a distinct school of psychology, represented by many eminent thinkers, such as Hartley, J. S. Mill, and Professor Bain. Professor Bain, who builds up his whole theory of the Intellect by elaborating this principle, analyses it into various elements such as the Law of Contiguity, the Law of Similarity, Compound Association, Constructive Association &c. Locke treats of it in the concluding chapter of B. II. of his *Essay*, chiefly from a practical point of view, warning the reader against the danger of forming wrong connection of Ideas, or intellectual habits—such as is illustrated in different religious sects.†]

**Historically:** Locke means that his treatment is wholly *descriptive* of the facts—the evils produced by wrong associations of ideas. But at the present day, the use of *historically* here would imply that Locke traced how the subject had been treated by previous authors. [Thus in a historical treatment of the subject it would be pointed out that “previous to the time of Locke, the doctrine of Association though to certain extent understood by

\* Locke has been charged, with some truth, of taking argument by analogy in a more strict sense than usual, of identifying it, in fact, with argument from Induction. But besides the remarks made above, it may be observed that Locke's criterion of the soundness of analogical reasoning agrees pretty closely with that often laid down—*viz.* that the resemblance between the cases supposed to be analogous should not be a *superficial* or *accidental* one, but *essential* for the purpose intended. (See Sidgwick's *Fallacies*, International Sc. Series, P. 253.)

† J. S. Mill observes that *analogy* is used loosely and in a great variety of senses, and specifies the two following uses: (1) Conformably to its primitive acceptation—that given to it by mathematicians,—Analogy is defined as *Resemblance of Relations*; as when a country which has sent out colonies is termed the *mother country* and the inference is drawn that obedience or affection is due from the colonies to the mother country. (2) Analogical reasoning ‘in another (and the most correct) sense of the word, may be represented by the formula—“Two things resemble each other in one or more respects; a certain proposition is true of the one, therefore it is true of the other”. (*Sys. of Logic*, B. III. ch. XX.)

‡ “That which thus captivates their reasons and leads men of sincerity blindfold from common sense, will, when examined, be found to be what we are speaking of: some independent ideas, of no alliance to one another, are by education, custom, and the constant din of their party, so coupled in their minds, that they always appear there together; and they can no more separate them in their thoughts than if they were but one indeed. This gives sense to jargon, demonstration to absurdities, and consistency to nonsense....and hinders men from seeing and examining.” —*Human Understanding*, Bk. II. ch. XXIII.

philosophers, made but little figure in their systems ;—that Hobbes alludes to it in his usual brief and dogmatic way"—that it was thus defined by an anonymous writer of Locke's time : *By association, I mean that power or faculty by which the joint appearance of two or more ideas frequently in the mind, is for the most part changed into a lasting, and sometimes into an inseparable union.*] That the rather—all the more so. Naturally so : When people find things *appearing* always in a certain connection, it is difficult to cure them of the belief that such things are truly and naturally connected.

**Unheeded miscarriage**—an error people take no pains to avoid. **Sandy &c** : See p. 12.

**Page 66. Without a vigour** ; unless indeed their minds are strong enough to shake off the authority of habit. **Empire** : because the sway of habit is universal. **The practice of**—to practise. **To suppress** : As religious teachers or priests generally contrive to make their followers forget that every man owes it to himself (as a rational being) to look into the principles of his belief—as it is the first steady step &c. [Religious teachers often set up implicit faith as the greatest of virtues—without which all others are of no avail. To doubt is to fall into the hands of Satan†] **Conscious to themselves** : Compare the remarks in the section on prejudice, pp. 22-3. Locke seems to be of the opinion of the ancient philosopher who could not imagine how two priests could meet together without laughing. **Own and propagate**—believe, and teach others. **Freely expose** : This description of what a lover of truth will do, is strikingly exemplified in the case of the scientific inquirers of modern times, who give the widest publicity to all the results of their research, to be confirmed or upset by other workers in their line ; whereas astrologers, magicians and the devotees to the so called "occult sciences" love to shroud their proceedings in

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\* J. A. St. John's Edition of Locke's works. Byron has the following striking lines on the process of suggestion by means of the association of ideas :—

"And slight withal may be the things which bring  
Back on the heart the weight which it would fling  
Aside for ever ; it may be a sound—  
A tone of music—summer's eve, or spring,  
A flower—the wind—the ocean—which shall wound,  
Striking the electric chain herewith we are darkly bound."—

*Childe Harold*, Canto IV.

† In Schopenhauer's *Religious Dialogue*. Philaethes says : "If in early childhood, certain fundamental views and doctrines are paraded with an air of the greatest earnestness ; if, at the same time the possibility of doubt about them be completely passed over, or touched upon only to indicate that doubt is the first step to eternal perdition ; the resulting impression will be so deep that, as a rule, doubt about them will be almost as impossible as doubt about one's own existence. Hardly one in ten thousand will have the strength of mind to ask himself—*is that true*... And yet the conviction is governed merely by the country native to each, and the reason must be climatic, and thrive like plants, some only here, some only there."

mystery, often pretending that it is dangerous to communicate their knowledge or art to any but the initiated.

**Principling**—imparting the fundamental principles to. **Scholars**—pupils. (The word has come to acquire a limited meaning in this country, through the introduction of a great number of scholarships or stipends for students.) **What colours**: I do not mean to inquire here in what ways this method of instruction is usually justified especially in the case of those who are obliged to labour hard for their livelihood (and have no time, it is said, to learn the reasons for what they are taught to believe.) **Ingenuous**—(*L. ingenuus*=free-born) free; not doomed to toil for their daily bread. This meaning is obsolete. **Letters**—literary culture, **United in their heads**:—that in the minds of children, those ideas may not come to be firmly associated together, which have no bond of union in their own nature: e. g. the idea of a particular form with that of the deity. **Inculcated to**—impressed upon; (*lit.* 'pressed down with the heel' from *L. calx*=heel.) **Correspondence**—agreement amongst themselves.

**Page 67. Riveted**—fixed. **Another place.....change &c.** In the chapter on perception (B. II. of the *Essay*), Locke explains how the ideas "received by sensation are often altered by the judgment, without our taking notice of it." Thus "when we set before our eyes a round globe of any uniform colour,—gold, alabaster, or jet,—it is certain that the idea thereby implanted on our mind is of a flat circle variously shadowed, with several degrees of light and brightness coming to our eyes. But we having by use been accustomed to perceive what kind of appearance convex bodies are wont to make in us.....the judgment presently, by an habitual custom, alters the appearances into their causes; so that from that which is truly variety of shadow or colour, collecting the figure, it (the judgment) makes it pass for a mark of figure, and frames to itself the perception of a convex figure and an uniform colour,—when the idea we receive from thence is only a plane variously coloured, as is evident in painting.....this in many cases, by a settled habit, is performed so constantly and so quick, that we take that for the perception of our sensation which is an idea formed by our judgment. **Not skilled in painting**:—i. e. who has never seen a piece of painting (*skilled*=possessed of any knowledge.) The words would now mean 'one who is not a skilful painter himself'—which is evidently inapplicable here. **See protuberances**: If such a man be told that he is not really seeing any swelling—anything rising above a surface—i. e. any solid object. **By the touch**: It is only when the painting is brought near to him, so that he can feel it with his fingers, that he understands there are no solid objects in it. **Legerdemain** (from a French word=light or sleight of hand)—trickery; deception (as of a magician or conjurer.) **Substitute other**: This is the great source of *Petitio Principii*—especially the employment of what Bentham calls "question-begging names." These are not, as

Locke admits, always sophistical, that is intended to deceive. Thus when a proposed change is called an *innovation*, the unfavourable meaning associated with the word imperceptibly affects one's opinion of the propriety of the change. Locke points out in his *Essay*, how the words *Nature* and *Essence* are used as instruments of fallacy by many eminent philosophers. **False consequences**—wrong inferences. [In ch. xvii, B. IV. of the *Essay*, Locke traces errors in reasoning to the following causes: (1) Want of ideas (which makes us reason about words—empty sounds); (2) Obscure and imperfect ideas—which involve us in difficulties and contradictions; (3) Want of intermediate ideas—which could serve to show the certain or probable agreement or disagreement of any two other ideas; (4) Wrong principles or foundations of reasoning; (5) Doubtful terms.]

**Sec. 42. Fallacies:** The word is used in various senses, the four following being the most common ones:—(1) "A piece of false reasoning in the narrower sense, either an invalid *immediate inference*, or an invalid *sylogism* ; (2) A piece of false reasoning in the wider sense, whereby from true facts, a false conclusion is inferred ; (3) A false belief, whether due to correct reasoning from untrue premises, (reasons or sources), or to incorrect reasoning from true ones ; (4) any mental confusion whatever."—Sidgwick's *Fallacies* p. 172. **Denied one of another:** i. e. as they are embodied in judgments (or propositions), either affirmative or negative. It should be borne in mind that this perception of the agreement or disagreement of ideas constitutes knowledge, according to Locke's definition. **Overbalance**—preponderance ; superior weight.

**Page 68. Gives it the turn of**—inclines the mind towards. **Reasonable &c.** It is rational and fitting that one should maintain a particular side of a question ; but he should not be prepossessed in favour of it before examination.

**Change the ideas:** state the question differently. (This is often done unconsciously, not with any intention of imposing on the reader, as L. admits in the next para.) **Remoter disagreement**—more thorough-going opposition.

**Sophistry:** From the qualification that follows, it appears that Locke does not mean by 'sophistry' what it usually implies, namely deliberate intention to mislead by false argument. He treats it as synonymous with fallacy or false argument. **Under their proposition:** as they believe firmly that truth can only be found in the views of that side in favour of which they are prejudiced. **Leads them from it**—takes them away from truth ; misleads them. **Slides:** introduces imperceptibly ; slips. **Favourable**—that help their side of the argument. **That is concluded:** (*that* is emphatic) A conclusion comes to appear evidently true by being represented thus favourably ; though that conclusion would have been rejected altogether, if it had been put forward in its true light,—if only clear and definite ideas had been used regarding it.



**Glosses :** There are two different words written and pronounced alike—(1) *gloss*='brightness or lustre,' which is of Teutonic origin, and is allied to *glass*, *glow* &c., and (2) *gloss*='marginal note' or 'comment' from L. *glossa* (as in *glossary*)='an obsolete word requiring explanation' traced to Greek *glossa*. (The first word came to mean also 'a specious representation or show.') Here Locke seems to have both these two words in his mind, for: though the second meaning is that intended to be used, there is a reference to the other in the expressions "handsome easy" &c.

**The putting... demonstration :** 'It has come to be regarded' as an essential feature of good writing (or style) to put in these ornamental comments on what one has to say. It is very unlikely that authors will abandon this ornate style of writing (which gives currency to their opinions as well as gives them reputation) and adopt a more dry and meagre style, taking care to use the same precise terms for their ideas in every instance. This disagreeable, downright precision of language is thought unbearable in any subject except Mathematics; for in Mathematics, truth forces its way into the mind by conclusive proof, and has no need of a pleasing style to recommend it.\* **Explication**—*lit.* 'unfolding'; expounding or exposition. **Character**—mark. **Esteemed**—considered. **Hard to think**—almost inconceivable. **Serves so well :** Because many readers are attracted by the charm of a flowing style. **Jejune**—*lit.* 'hungry'; dry. **Blunt**—rude. **Stiffness**—want of grace or elegance; severe accuracy.

**Prevailed with**—persuaded. **Prevailed upon** is the phrase used now. **Looser**—less exact. **Insinuating**—*lit.* 'winding' into (the mind); insensibly winning favour.

**Page 69. Unvaried terms**—using the same words all through. **Unsophisticated**—pure; unmixed with fallacies. (The word is now most commonly used of men free from the artificialities of society.) **Concerns**—is important for. **Stripped of words :** This cannot be taken literally, for it would be absurd to speak of fixing ideas &c. without words. All that is meant is that words serving only to adorn the subject and to make the reader lose sight of the weak points in the argument, should be disregarded. **Those in question :** the ideas which properly concern the argument. **Slides by**—has nothing to do with. **Foreign**—irrelevant.

**That next to them**—the men who closely resemble those who write against &c. **Reject any arms :** such men are ready to use any weapons, or means, however unscrupulous (*i. e.* the most sophistical arguments and the worst perversions of truth.)

Locke here indulges in a grave irony against writers professedly philosophical, who go out of their way to seek graces of style at the expense of clearness and precision. He was himself often careless in style, but generally clear and almost invariably precise,—ready to repeat the same word ever so many times, if it was the best. There is a story of a learned lady who after reading through his great *Essay* remarked that it would have been perfectly charming but for the constant repetition of one very hard word *viz. Idea*.

**Indulge** : to carry their love for the opinions they believe to be true to such excess, as to represent those opinions in the most favourable light, clothing them in the style most fitted to attract and impress the readers. [Here we have an instance of Locke's carelessness in the matter of style : "they *think* they may so far *allow* themselves to *indulge*...as to *permit* their esteem.....*give* it.....thereby to *gain* &c." is a clumsy and unnecessarily complicated way of expressing the thought.]

**One of those** : viz. either (1) readiness to use any sophistry in maintaining opinions they do not themselves believe in, or (2) readiness to represent in an unduly favourable light what they believe to be true.

**Is fit**—is proper that.

**Page 70. Pure ideas**—ideas not obscured by means of misleading words ; (explained by *Divested of &c.*) **False lights**—wrong representations. **Suffer not** : should not allow the terms to be changed however slightly. **Warehouse** : store-room of the worthless thoughts of other men, filled with all manner of rubbish from the pages of various writers. **Unconcluding** (obsolete)—inconclusive ; unsound. **Repository**—receptacle. **Stand him** : be of great use to him. **An one** : a *one* would be used now. **I leave** : I am sure he himself will perceive how shamefully he wrongs his own intellect by filling it with such refuse.

**Sec. 43. Verities**—truths. **Becomes our prudence**—is a prudent thing for us to do. **Incidental**—not essential. **It is much worse** : on the old Socratic theory that honest ignorance was better than false knowledge ; because in the one case the would-be painter knows that he is learning nothing, while in the other students of logic fancy that they have mastered all knowledge worth acquiring. **Warmed**—heated, i. e. distracted. **Airy**—unreal ; empty.

**Page 71. Descend...drudgery**—degrade themselves by the dull labour. **Professed way** : and he abuses his intellect while pretending to be advancing in knowledge. **Abundance of questions** : and the same thing might be said of the great variety of questions or topics, and the useless discussions about them, amongst Schoolmen.

**In which consistency**—which (fundamental truths) give coherence to these other truths—make the latter form a systematic whole. **Teeming**—fruitful. **Rich in store**—valuable and plentiful. **Newton (1642—1727)** Sir Isaac Newton's great work, the *Principia*, was published in 1687. **Counted** : regarded as the foundation of physical science. **Which, of what use** : (Sentences of this inverted structure are hardly admissible at the present day.) And he has shown how well this discovery serves to explain the way in which the solar system is held together, so as to asto-

nish all men of culture. **Doubts in social morality**—all difficult questions regarding our duties to others.

**Sec. 44. Bottoming**—placing upon a rational basis.

**Page 72. Topical**—confined to some stock subjects of dispute. **Store** (no longer quite idiomatic in this sense)—great abundance. **Stability**—permanently settling down.

**Grand Seignior**—Sultan of Turkey. [Locke speaks of this ruler merely as the type of a sovereign prince. The question of the right of a king to tax his people without their consent occupied many minds during the 17th century, and the upholders of the divine right of kings and of the theory of an original contract (by which the people were supposed, as in the works of Hobbes, to have surrendered all their rights to the ruler) regarded such a right as self-evident.] **Naturally equal**: i. e. equal as regards political rights. Thus Filmer, a staunch Royalist, contends in his *Patriarchia* that there never was a time when men were equal,—that from Adam, Noah and other patriarchs of old, the supreme power of heads of families had passed to the kings of later times.\* The first of Locke's two treatises on Government, was devoted to disproving the principles of Filmer and his school (see Introduction.) And having demolished the theory that the rulers on earth derive their authority from "Adam's private dominion and paternal jurisdiction," Locke proceeds in his second treatise to prove that the natural state of all men is not a state of war as Hobbes held, but a *state of freedom* (within the bounds of the law of Nature) and also a "*state of equality wherein all the power and jurisdiction is reciprocal, no one having more than another.*" **Upon that it turns**: the following extract will show how Locke makes out this dependence: "Thirdly, the supreme power cannot take from any man any part of his property without his own consent. For the preservation of property being the end of government, and that for which men enter into society, it necessarily supposes and requires that the people should have property—without which they must be supposed to lose *that* by entering into the society, which was the end for which they entered it. For I have truly no property in that which another can by right take from me, when he pleases, without my consent"—Locke on *Civil Government*, B. II. ch. XI. In Ch. VII he shows also that such absolute authority as is claimed by the Czar or the Grand Seignior is inconsistent with the very constitution of civil society; for it would be absurd to maintain that when men, quitting the state of Nature, entered into society, they agreed that *all of them but one* should be under the restraint of laws; but that he should still retain all the liberty

\* "It is true, all kings be not the natural parents of their subjects; yet they all either are, or are to be reputed, the next heirs to those first progenitors, who were at first the natural parents of the whole people, and in their right succeed to the exercise of supreme dominions."—*Patriarchia*. Filmer then tries to prove that it is unnatural for the people to govern or choose governors, and that positive laws do not infringe the natural and fatherly power of kings.

of the state of Nature, increased with power, and made licentious with impunity." See Introduction, pp xvi—viii.

**Sec. 45. Unconcerned**—careless. **Forwardly**—rashly; too hastily. **Resty**—restive, impatient of control. [In one sense the fact that thought is ungovernable may seem quite consistent with its being free; but when thought is said to be free, what is meant is that *we are free to think as we please*: for it would be absurd to set up *thought* as an independent entity apart from the person that thinks.]

**Page 73. Above taken notice of:** Sec. 6. p. 15 (last para.) **Grow into:** gradually acquire a knowledge of such ideas as would furnish it more plentifully with what might usefully occupy the thoughts.

**Recommended:** which we are compelled to think of under the influence of some passion—*e. g.* when we brood over an insult or a plan of revenge, or are filled with enthusiasm for anything. **Dislodged**—removed. **As if...posse:**\* we are mastered by the passion which is, as it were, the sheriff of the mind for the time being accompanied by a body of men to carry out his orders. (*viz.* all the thoughts and feelings roused by that passion.) **Sheriff** originally "Shire-Reeve". *Reeve* comes from A. S. *reafan*, to seize or levy. In early times the Sheriff represented the lord of a district, whether a township or Hundred, at the folk-mote (people's meeting) and levied the lord's dues, performing also some judicial functions. **Posse** is a contraction of *Posse comitatus* (*lit.* the power of a county) which comprised all able-bodied males within the county between the ages of 15 and 17,—who were bound to aid the sheriff in the execution of his duties—*e. g.* in suppressing invasions, rebellions, riots, capturing criminals &c. **Who...almost**—there is hardly any one. **Advances itself &c**—hardly enables the mind to make the slightest progress in &c. **Advance** has a causative force. **Hugs**—embraces; is attached to. **Pores on**—studies; contemplates. **Worse sense:** *i. e.* possessed with devils; under the influence of Satan, or of the Black Art. **Strong application**—energetic effort of powerful stimulus. **From their secret cabinet:** (*from* is not to be found in some editions, but is necessary to make the meaning clear) from the recesses of their own hearts,—where they were kept confined, as it were. **Puppet**—the idle thoughts, or interests—which pre-occupied them.

**Dumps** (now always used humorously, or by way of a joke)—a gloomy or depressed state of mind. **Carries them away:** 'makes them absent-minded.'

**Page 74. Did this state:** If a man always remained absorbed

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\* Cf.—"One master passion in the breast,  
Like Aaron's serpent, swallows all the rest."

—Pope's *Essay on Man*, Ep. II.

in this fashion, people would unhesitatingly call it madness ; and even when it comes after long intervals, it does for the time prevent the mind from advancing in knowledge ; it is like going round and round the same track, like the mill-horse, that cannot help a man forward in his journey.

**Legitimate passions** : such as a man may reasonably entertain—as enthusiasm in a good cause. **Occasional affections**—passing fancies. **Such a flaw**—so marked a defect in the understanding, as to appear to have no power of understanding, left to us sometimes. **Little better than so** : if we cannot use it for those purposes to which we wish to apply it, and which urgently call for its exercise, it is as if we had no understanding at all.

**Thought on** : ‘thought of’ is the phrase now used. **Regulate the cure**—adopt the remedy that will suit the case.

**Instanced in**—brought forward as an illustration. **Concern of it**—what it is interested for anxious about. **Drooping under**—pining for.

**Page 75. Works itself** : Gets warm or violently excited over the subject. **Career**—*lit.* ‘a run’ ; i. e. eagerly rushes to some opinions. **Bowl** : from the favourite game of bowling (which then occupied the place that the game of lawn tennis does at the present day.) **Heat**—fit of excitement.

**Third sort** : of the diseases of the mind. **Dandles**—shakes on the knees (as in fondling a child) : takes pleasure in. **Scrap of poetry** : An amusing instance of this is furnished by the American humourist, Mark Twain, in his story of a man possessed with some amusing tram-car jingles which he could not get off his head for days and weeks together, till he was almost driven mad by them. The lines are :

Conductor, when you receive a fare,  
Punch in the presence of the passenjare !  
A blue trip slip for an eight cent fare,  
A buff trip slip for a six-cent fare,  
A pink trip slip for a three-cent fare,  
Punch in the presence of the passenjare !  
(Chorus). Punch, brothers ! Punch with care !  
Punch in the presence of the passenjare !

**Chiming**—making an incessant music or rather jingle. **No stilling**—no means of silencing. **Experimented** (here) experienced. **Frisking**—dancing, fantastic. Cf.—“ They went waltzing through my brain”—*Mark Twain*. **Importune**—incessantly occupy ; reater. **Odder**—more curious or strange. **Make this doubt** : *doubt* here means ‘supposition’ ; *make a doubt* is not idiomatic at the present day. The supposition is contained in a preceding sentence—“ Whether every one,” &c. **Quick an exist** : passes away as rapidly as the one that preceded or introduced it.

**Page 76. Have its turn**—be then dismissed. **Excellent parts**—great intelligence. **Notice** : the word would now hardly be

though it appropriate here. **Had much ado** : what we had great difficult in making her believe, when we talked about it. **Intruders**—faces which she did not wish to see. **Mechanical**—purely physical. **Matter and motion**—what had entered into the blood &c. and had warmed it (or made it circulate with greater rapidity.) The changes in the system produced for the time being by the unusually large quantity of tea the lady had taken, are referred to. **Animal spirit**—a supposed fluid substance in the body, (on the supply or state of which a person's cheerfulness or depression &c. was thought to depend.) The state of the nerves was accounted for by reference to this fluid,—a cheerful mood being supposed to imply the possession of high animal spirits.

**Prosecute**—pursue ; entertain one after another.

**Spontaneous current**—flow or course, not prompted by any passion. **Humour**—indulge ; lazily permit. **Triflingly**—in what is useless. **Corporeal**—of the body. **Captivated**—made a captive of ; imprisoned. The word is now always used in a secondary meaning—'fascinated,' or 'charmed.'

**Page 77. Pains** : our efforts are sure to succeed. **It was upon**—the mind was engaged in (the phrase would now be hardly appropriate.) **Contrary practice** : of indulging 'these trivial attentions.' **Well advanced** : has made considerable progress in leading the mind back into more serious subjects. **Incidental**—stray ; random.

**At a venture**—aimlessly. **Insignificant**—meaningless. **Buzz &c.** Such as "Punch in the presence of the passenjare," with its foolish jingle. **Profitable**—Efficacious. **Remedy** : viz. vigorously employing our thoughts on some work.

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## ANALYSIS.

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**1. Introduction.** (A.) *Importance of guiding the understanding rightly.* It is by the understanding, that a man conducts himself; his will (or rather the man himself in willing to do anything) is influenced by the knowledge, true or seeming, in the understanding, which furnishes him with reason for what he does. It is the ideas in men's minds that constantly govern them. Hence the importance of guiding the understanding aright.

(B) *Uselessness of Logic as generally studied.* Some more perfect and adequate means of guiding the understanding is needed, as Bacon recognised.

**2. Parts.** There is great difference perceivable amongst men in point of intellect,—due not so much to natural defect, as to neglect on the part of many to cultivate their understanding; which keeps them in error and ignorance all their lives.

**3. Reasoning.** (A) Three ways in which men fail to make proper use of their reason,—besides the want of definite ideas &c. (i) Following the examples of others,—parents &c.—with implicit faith, instead of using their own reason; (ii) being influenced by passion, (interest, humour, party-feeling &c.) instead of reason; (iii) narrowness, or partial views. (B) Human beings are all more or less subject to this last defect; hence the usefulness of consulting with others, and trying to see things from their point of view. We are led astray not so much by error in the process of reasoning as by an imperfect knowledge of the principles on which the reasoning is to be based. (C) Many men of study and thought are unable to advance in the discovery of truth through this narrowness, which keeps them confined to a little world of their own, (beyond which all appears dark and worthless to them.) Such men are compared to the savage inhabitants of the Marian islands, who despised the civilization of other nations, in the pride of their ignorance. (D) We should not therefore limit artificially the horizon of our thoughts, but keep our minds open, receive light from all directions, examine any opinions before rejecting them as false, and be ready to make a laborious search for truth, separating it from falsehood by the touchstone of natural reason that every man is furnished with. (E) It is the want of exercise of this common sense in day-labourers and country gentlemen that make them so markedly inferior to towns-people in intelligence. (F) The artificial divisions and systems—each regarded infallible by its followers—blind men to truth, especially in matters of religion. (G) Most men can acquire a general knowledge of the subjects that the world expects him to be versed in, consult the best books dealing with such subjects &c., and above all use the freedom of his reason. He should distinguish between a man of reason and

a mere clever sophist, and never suffer reverence or prejudice to affect his adoption or rejection of any opinions.

**4. Practice and Habits.** (A) Nature has endowed us with faculties capable of almost anything and it is want of exercise that prevents their development. The wonderful feats of rope-dancers and even of many skilful artisans which appear almost incredible are solely due to practice; and even wit, humour, or readiness in telling stories &c. may be traced to a similar process of growth by constant practice, though indeed natural disposition may often first give rise to it. (B) It is not by set rules, such as Logic deals with, that perfection can be attained in anything. (C) It is wrong to blame nature, when the fault lies in neglecting to improve properly one's natural parts; we find for instance, men stupid in talking of religious matters, who are sharp in making a bargain.

**5. Ideas.** Necessity of getting definite ideas, and of thinking about them rather than about mere empty words.

**6. Principles.** (A) Opinions are based on such foundations as respect for the leaders of one's party, prejudice against another sect, reverence for antiquity or contempt for what is new. (B) Even after men have been shown how unreasonable it is to judge of truth and falsehood by such standards, they go using them. They often do so not to impose on others, but because they deceive themselves, and because the mind must have some foundation, whether true or false, for the opinions it entertains. Especially in matters of religion, men are not permitted to be wavering, but must take up some tenets together with some principles supposed to be satisfactory. (C) It is because people cannot follow a long series of arguments, that they often accept principles which do not really support their opinions. (D) Men do not perceive or recognise that they want this power of reasoning. In their daily life, when they go wrong and come to grief, it is not such want to which they attribute their mishap, but to unlucky accidents, fault of others &c. (E.) The only remedy for this is to train people early to habits of close thinking. (F.) Those who are found reasonable in one thing are wrongly concluded to be so in all. It is indeed true that he who is reasonable in one thing, *may be taught to be so in others.* (G.) Men of inferior education, are found no better than idiots if they are taken out of their narrow groove of thought, where the few rules they have always relied on, fail them. If forced to give up those maxims, they often grow quite sceptical. (H.) Though it is not impossible to improve the understandings of grown-up men, it is only by much industry and application that such a result can be attained. (I.) What is at first very difficult to understand, seems quite plain after the mind is opened by degrees to perceive the connection between ideas, as is illustrated in the slowness with which boys grasp mathematical demonstration.

**7. Mathematics.** (A) The habit of reasoning closely which the study of mathematics gives is valuable to those who are not meant to be deep mathematicians, as it can be transferred to



other branches of knowledge. (B) But in matters admitting only of probable reasoning, and not mathematical demonstration, it is necessary to weigh all the arguments on one side against any on the other side in order to come to a decision. (C) The method of disputing in scholastic logic,—of insisting on some topical argument—is quite misleading in the complicated reasoning by probabilities. (D) The mind should therefore be trained early to view a thing from all sides, and not be misled by presumption, laziness, or rash haste. (E) To the objection that this would require every man to be a scholar, it is replied that it is a shame for those who have received wealth or competence from their ancestors, not to make proper use of their ample leisure and means. (F) The importance of the study of mathematics: (i) it teaches men to be less presumptuous, by showing them how little their natural parts, without practice, help them to understand close reasoning; (ii) it shows the necessity of clearly analysing the ideas, and rigorously excluding all that is irrelevant; (iii) it habituates the mind to a long train of reasoning. (G) As to those who have less time and means, what is proposed is not of vast extent; it is not too much to ask that they should be conversant with what they have every day to deal with or talk about.

**8. Religion.** Every one has a concern in a future life, and should therefore learn to reason aright in matters of religion. If men would but use their Sundays properly, and receive the assistance of those who are fitted to instruct them, they need not be in gross ignorance on this subject. Men of a humble station in life are often found well-instructed in religion, as among the Huguenots in France. But even if such men be supposed doomed to ignorance, there is no excuse for men of means who neglect to avail themselves of their opportunities in a matter of such deep importance.

**9. Ideas.** (A) Our minds are constantly receiving ideas of external things; care should therefore be taken to store our minds, with general or abstract ideas, in which they are so often found poor. (B) Knowledge consists in the preception of the agreement or disagreement of ideas. And since it is hard to make out such relations between things actually before the eye—as in contemplating a mathematical diagram,—much more so is it in the case of abstract ideas. These latter must therefore be vary clearly settled in the mind, if we are to have correct knowledge of moral or religious subjects, and not to entertain inconsistent notions.

**10. Prejudice.** (A) People complain of the prejudices of others, but do not perceive their own. (B) The way to detect a prejudice is to see whether one is prepared to listen to and calmly consider the arguments that go against his cherished opinions. For if a man's opinion be based on sound principles, why should he be afraid to subject it to strict proof? To show that he is a lover of truth a man must (1) be impartial, (2) ready to examine.

**11. Indifferency.** To be impartial, one must not be strong in

his adherence to any opinion, or wish it to be true, till he knows it to be so; and not think that all is gone unless he maintains tenets which have no other evidence but respect and custom.

**12. Examine.** (A) To examine is to try whether one's principles are certainly true or not. (B) The inability to do this is not due to any natural defect, but to the bad habit of taking principles at haphazard, upon trust, and of believing a whole system with childish credulity, presuming that it is sound. (C) Freedom of the understanding consists of these two elements: (1) impartially welcoming all truths, and (2) not receiving any principles till we are fully convinced of their solidity, truth and certainty. The great road to error is to be indifferent whether what we receive is truth or not, instead of being indifferent which of two opinions be true—the latter being the right temper of mind that preserves it from being imposed on. (D) The business of education is not to perfect a learner in any science, but to give his mind such freedom, disposition and habits as may enable him to acquire any branch of knowledge. This is "well-principling." (E) The opposite course, of instilling a reverence for certain dogmas, ends in perfect scepticism, when on coming out into the world, one finds he can no longer rationally believe such dogmas. (F) The next few sections deal with certain defects that hinder the mind in its progress towards knowledge.

**13. Observation.** (A) Particular facts from the basis on which all knowledge is built; but the mind is unable to utilise these facts properly, through either (i) too great a readiness to make observations (*i. e.* general remarks) on such facts, or (ii) undue slowness in doing so. Those who fall into the second error merely cram themselves with all manner of details, without generalising on them; and may be said to have but the materials of knowledge. Those who fall into the first error, run into unsound generalizations, and are perhaps more harmed by their studies. (B) The middle course is to take useful hints, sometimes from single facts, and then have the hints either confirmed or reversed by a wide reading and examination.

**14. Bias.** No body indeed professes not to know and think of things as they really are, but many are influenced in their judgment of men and things by their interest, faith, party &c.; and these they call the cause of God, or the good cause. They should consider that a good cause needs not the help of any undue bias, and that truth will support it.

**15. Arguments.** (A) Instead of receiving opinions supported by strong arguments, men perversely adopt the practice of espousing opinions and then collecting arguments in their favour. (B) Bookish men often collect arguments on both sides, caring only to dispute cleverly, not to discover truth. (C) A great variety of arguments serve only to distract the understanding, and to make a man lean on others, instead of on his own understanding.

**16. Haste.** (A) It is right to economise our labour and adopt time-saving processes of attaining knowledge. But people often content themselves with improper ways of search, either through haste or laziness,—(i) relying on testimony where proof is needed, (ii) resting satisfied with one argument, where many are needed to establish a reasonable certainty, (iii) or with probable reasoning where strict demonstration is available. The nature and manner of proof adapted to an inquiry should be first considered. (B) In merely hovering about truth, the mind is amused with uncertainties, and is but capable of a variety of superficial plausible talk; (C) A further effect of haste is that arguments are not traced to their true foundation, men merely jumping to the conclusion, and becoming full of fancy, conceit, and obstinacy in error.

**17. Desultory.** Another evil habit, resulting from laziness, is skipping from one knowledge to another, any study long continued being felt intolerable.

**18. Smattering.** Pretensions to universal knowledge lead to superficial notions and smattering in everything.

**19. Universality.** (A) It is not, however, wrong to acquire a general (not superficial) knowledge of most subjects, if the object be not mere display in vain talk, but to enlarge the mind and fill it with true ideas. (B) Though few men are able to attain a thorough knowledge of all subjects, more may be done in this direction by men of leisure and means, than is ordinarily thought possible. (C) The advantages of universality: (i) To accustom our minds to all sorts of ideas and proper ways of examining their relations; (ii) it gives a freedom to the understanding, as well as sagacity, wariness, and versatility; (iii) it is a preventive against narrowness, or the tendency to look at everything from the point of view of one's exclusive study (illustrated in the vagaries of metaphysicians, chemists, musicians &c.) This is avoided by giving the mind a fair and equal view of the whole intellectual world. (D) This may be unattainable in old men, but may be attempted in the education of the young—which should aim not at perfect knowledge in any one of the sciences, but to open and enlarge their minds, and fit them for every kind of study. See sec. 12.

**20. Reading.** (A) Reading only furnishes the mind with materials of knowledge; it is thinking which makes what we read ours. (B) And only some writers give us deep thoughts, and light for us to be guided by; the others only furnish facts, and the knowledge gained from them is but second-hand serving for ostentation. (C) The mind should, by severe rules, be trained to trace every argument in books to principles and examine its soundness. The cultivation of this faculty gives one the key to books, without which one would be lost in the intricacies of a variety of arguments. (D) It is only those whose reading is intended for talk and not true knowledge, who will regard the practice of unraveling every argument to be a hindrance to progress, in studying. (E) It is only at

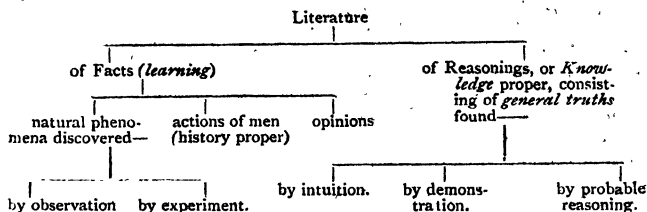
the beginning that this will make progress slow ; when one is used to it, he will have a wonderful quickness in seeing the drift of an author's arguments &c.

**21. Intermediate Principles.** (A) The mind should provide itself with several stages in reasoning from first principles to the conclusions sought ; these are intermediate principles, which may, when established, serve to prove other points more clearly than reasoning from remote general maxims. (B) This is best seen in Mathematics ; in other subjects, care should be taken that these intermediate principles are not hastily assumed upon credit, inclination, interest &c.

**22. Partiality.** Partiality to certain studies is as misleading as partiality to opinions, (see sec. 10 and 14)—causing one to be vain of his own branch of study and ignorantly despise others ; though it is indeed reasonable that one should have love for what he makes his peculiar study.

**23. Theology.** Such partiality is markedly observed in students of theology, which is often narrowed into a trade or a faction,—though properly viewed, (as the knowledge of our duty to God and our fellow-creatures, of our present and future states) it ought to be studied by all who deserve to be called rational, as it comprehends all other knowledge directed to *its true ends*,—i. e., the honour of the creator and the happiness of mankind.

**24. Partiality.** (A) Returning to the subject of section 22, the author goes on to say, that even when this partiality for a favourite study does not lead to contempt of all others, it may be intruded into subjects with which it has no real affinity. This is illustrated in those who are mere mathematicians or mere chemists. (B) Things are to be considered as they are in themselves, and not as viewed through the spectacles of books ; we should not try to bring things to any preconceived notions of our own. (C) Another partiality equally ridiculous and injurious, is attributing all knowledge either wholly to the ancients, or to the moderns. Truth is always the same, is neither decayed by time, nor is the worse for being new. What is old to us, was new at one time ; and what we newly discover, will be old to posterity. (D) A third form of partiality shows itself either in overvaluing or under-estimating what is the common or prevailing opinion ; of either holding that *vox populi* is *vox Dei*, or despising the many-headed beast as they style the mass of mankind. Those who reject vulgar opinions as only suited to vulgar capacities, are often ready to welcome any paradoxes or startling novelties. (E) A fourth form of partiality is attaching undue importance to writers who favour one's cherished opinions. (F) Reading is not synonymous with study ; what we find in books is not always knowledge. All that we find in books may be divided thus :—



Knowledge of *facts* is only *learning* as distinguished from *knowledge*—which consists of *general truths* discovered by human reason. (G) Though books are great helps to the understanding, they prove a hindrance to many, who make no great progress in real knowledge with all their incessant reading. (H) It is not by mere reading, but by understanding what one reads, and following the train of reasoning in books &c., that an author's knowledge is transfused into the reader's mind, and is assimilated by the latter. (J) Whatever is not fully understood is merely taken upon trust, and is but implicit knowledge. An author's testimony may be of value in matters of *fact*, but cannot affect the truth and falsehood of *opinions* depending on proof. (J) It is indeed an advantage to have the proofs discovered and laid in order by previous writers; but to make proper use of these we should not hastily peruse them or only retain their opinions and remarkable passages in the memory, but enter into their reasoning, examine their proof, &c.

**25. Haste.** (A) The very eagerness to acquire knowledge may be a hindrance, if it prevents one from staying long enough in what is before him. It is by digging that men discover rich mines. (B) But one should not dwell too long on mere niceties and subtleties, stopping to pick up every pebble, as it were, on his way. The value of truths depends not on their difficulty but their usefulness. (C) Another kind of haste leads one to run into general observations too readily (See Sec. 13.)

**26. Anticipation.** Men often content themselves with any appearance of knowledge, right or wrong, and hold it fast when once got. Such stiffness of the mind is the result of prejudice, and is plainly the result of an abuse of our faculties.

**27. Resignation.** An error of an opposite kind to the preceding, is met with in those who resign their judgment to the last man they hear or read. This is like drawing lots to decide which opinions are true; for it is a matter of accident which opinion is presented last to one's mind.

**28. Practice.** (A) It is wrong to employ the mind on a task beyond its strength, as the result is a long or permanent depression or dislike to studies requiring thought. It is by insensible degrees that the understanding should be brought to the difficult parts of

knowledge. "He that begins with the calf may carry the ox." (B) On the other hand, it enervates the understanding to be too timid about facing what seem difficulties, so as to hover about the surface of things. (C) Though learners must first be believers, it would be wrong to dwarf the intellects of the young by the weight of too much reverence.

**29. Words.** One should not take any term to stand for anything without having a clear idea of that thing—though the use of the term may be one sanctioned by high authority. There are many terms—like *substantial forms* &c. which are really meaningless or mere empty sounds, though used by philosophers. It is useless to try to understand him whose ideas are not clear, and who uses words without being sure what they mean. Words are not made to conceal, but to declare and show something. (The subject is pursued in sec. 31.)

**30. Wandering.** (A) It is of great advantage so to direct the train of our thoughts, that only such as are strictly pertinent may enter the mind engaged in an inquiry—or that we might dismiss irrelevant ideas. (B) There is hardly any effective remedy for this defect; all that can be proposed is that by frequent attention and application, one should get into the habit of not wandering from the subject. In children, it is not by chiding or other harsh measures that their minds can be kept from straggling; but by gently leading back their wandering thoughts.

**31. Distinction.** (A) The author distinguishes between *distinction* and *division*,—the former he takes to mean perception of some natural (and true) difference, and the latter mere artificial (*e. g.* logical) subtleties. However useful it may be to discern every variety in nature it is not convenient to consider every difference in things and to divide them accordingly into distinct classes. Arbitrary verbal distinctions without any distinct notions corresponding to the terms invented, neither clear difficulties nor advance knowledge. (B) If our ideas are settled and definite, there would be no need of the multiplied scholastic distinctions. Infinite subdivisions only confound the mind of the reader, and indeed not seldom that of the writer himself. Discussions about equivocal terms &c. appertain more to dictionaries and commentaries than to real knowledge and philosophy. (C) The dexterous management of terms is a great part of *learning*, as distinguished from knowledge,—which consists in preceiving the relations of ideas one to another, as may be done without words (?) In empty disputations, it is indeed the interest of one side to use as comprehensive terms as possible, to entrap the adversary into incautious admissions; while, on the other hand, the opponent has a manifest interest in drawing hair-splitting distinctions to baffle that intention. (D) Where there are no terms in the language answering to every distinct idea, all that need be done is to affix distinguishing terms to the words already in use, instead of inventing perfectly new terms. (E) The opposite error of

jumbling things together in which any likeness is to be found however superficial, is equally to be avoided.

**32. Similes.**—Figured and metaphorical expressions do well to illustrate more abstruse and unfamiliar ideas ; but they must not be used to paint the ideas we have not, or take the place of real and solid truth, and to lead them to think they understand what they really do not. Men who abound in similes often get a credit as plausible talkers, capable of striking the fancy. Whatever may be their usefulness to orators, their use should be kept within strict bounds in philosophy and science.

**33. Assent.** Everybody admits that our assent should be regulated by evidence, and yet most people firmly embrace doctrines upon slight grounds, or waver in everything and some even reject all as uncertain. The only remedy to be proposed is that one should use his eyes, and not let them be dimmed and dazzled by interest, by passion, by the habit of arguing on any side regardless of truth &c. (B) There are so many ways of fallacy, of dressing up falsehood in attractive colours, that the greatest caution has to be constantly used. (C) He that has a mind to believe has assented already.

**34. Indifferency.** See secs, 11, 12 and 14. (A) Though perfect freedom from bias or error is unattainable, the directions here given may make us more cautious and inclined to examine what we receive as true ; and may convince us that it is we who fail to make a right use of our faculties, and not the faculties that fail us. (B) Generally people accept unquestioningly the opinions of their country or party, and are applauded for doing so ; while those who think are regarded dangerous, as likely to deviate from orthodoxy. This makes bigots of the shortsighted and sceptics of the more cautious. (C) Those who attach so much importance to orthodoxy, should think how local a thing it is ; in almost every country and community, (whether civilized, semi-civilized, or barbarous) there are certain opinions similarly received as infallibly true. What safety is there, then, in blindly accepting the current opinions ?

(D) There are three states, in one or other of which a man deficient in knowledge must be : (i) *wholly ignorant* ; (ii) in a state of doubt as to the opinion he has already received, or is about to receive ; (iii) obstinate in adhering to what he embraced without examination. The first is the best of the three, as it keeps the mind open to truth.

**35. Ignorance with indifference.** (A) This second state nearer to truth than opinion unreasonably clung to. (B) The third is the worst of all, for if an error has been received for truth, there is no means of correcting it. (C) He who is wholly ignorant should inquire directly into the nature of the thing itself, not minding the opinions or disputes of others, or even temporarily taking up any particular side, lest he should be insensibly

biased. (D) For instance in medicine, it would be better to consult Hippocrates at first hand, than read any of his, voluminous and conflicting commentators, lest one should be prepossessed by the subtle interpretations (or rather modifications) introduced by the latter.

**36. Question.** This "indifferency" will also enable people to state the question aright.

**37. Perseverance.** (A) Another result will be that each man will pursue with regularity and constancy the method best fitted to the nature of the thing. (B) While, however, men with small leisure need pursue no great extent of knowledge in this way, there is no excuse for those who have much time and energy to spare.

**38. Presumption.** (A) Hardly any one is without some defect of the understanding. Some think too highly of their parts, and fancy they need no culture to reap knowledge. We are born ignorant of everything, and receive only superficial knowledge of eternal things from the impressions they make; to acquire any deep knowledge requires labour, close application, and method.

**39. Despondency.** (B) On the other hand, there are men who despair of attaining any knowledge outside their ordinary business, on first meeting with a difficulty. (C) But strength of intellect grows with exercise, and a firm belief that we shall conquer goes a great way in effecting that conquest. (D) Things at a distance, and viewed as a whole, appear terrible, the understanding raising spectres to flatter its own laziness; but on a nearer view, and reduced to distinct parts, the difficulty will vanish. Most readers have had experience of this. (E) Care should be taken to advance step by step, slowly; but whoever tries it will find that in the long run, the progress made will be quicker than by any other method. (F) The mere distinct stating of a question, separating clearly the various parts of it, often does more to clear it up than talking whole hours about it as a whole.

**40. Analogy.** Analogy is very useful but may be misleading, if we do not confine ourselves to the real points of resemblance between things.

**41. Association.** (A) Wrong and unnatural connections are formed by this process between ideas, which it is very difficult for the mind, to get rid of, without that habit of looking into principles which religious teachers often do their very best to suppress. (B) From this it may be suspected that such teachers are not unaware of the weakness of their arguments and principles. (C) The method of teaching children to imbibe their teachers' notions implicitly, is radically faulty, though it may be defended perhaps in teaching the lower orders whose time is taken up in manual labour. Put the early teaching imparted to the leisured classes should certainly aim at preventing such unnatural and harmful associations,



and at accustoming them to examine those ideas that they do find linked together in their minds. (D) It is better to prevent than cure this evil when once rivetted by habit; in the latter case one must carefully observe the quick working of the mind. (E) These quick motions may be illustrated in the transference of ideas of sense into those of judgment, as when from certain visual signs we conclude that an object is solid.

**42. Fallacies.** (A) Most authors exhibit evident bias towards one side or the other of questions they discuss. This may be detected by noting how often they change the ideas of the question, either by changing the terms or by adding new terms. (B) This seems direct sophistry; and yet it is often not meant to impose on the reader, but merely shows how the writer himself is imposed upon. (C) *Cause*: It is through false ideas about style that authors introduce these graceful expositions which lead them astray,—a plain, strictly precise style being thought intolerable except in mathematics. (D) *Remedy*: It thus behoves readers to fix in the mind the distinct ideas of the question, and to observe how they are connected in argument, apart from the words used by this means they would find out where any foreign ideas were brought in. (E) For those who find the above process too tedious the remedy is to avoid controversial works, or be very cautious which of them they read. For writers in defence of the tenets of a party are either sincere or write against their convictions; in the former case they honestly believe themselves bound to present their views in the most attractive light, and are carried by zeal into exceeding the truth; in the latter, they are most unscrupulous sophists. (F) Every man can, if he has a mind to it, keep the precise question steadily in his mind. If he does not, he makes his mind the "warehouse of other men's lumber", thus abusing his intellectual gifts.

**43. Fundamental verities.** (A) We should employ our thoughts by preference, on fundamental questions, avoiding trivial ones. (B) Purely logical studies simply waste the time of many young men; and what makes this waste all the more deplorable, is that the student fancies that he is advancing greatly in knowledge all the time, and comes to despise the drudgery of experiment and inquiry. (C) There are many fundamental truths, not only beautiful and entertaining, but furnishing light and evidence to other things—e. g. Newton's theory of universal gravitation, and Christ's rule of conduct, *Love thy neighbour as thyself*.

**44. Bottoming.** It is important to find principles which satisfactorily explain many difficulties, and furnish easy solutions to questions. Thus the question whether a ruler has absolute right to take what he pleases from his subjects, turns upon the fundamental question, whether men are naturally equal,—the settlement of which solves many complicated questions about the rights of men in society.

45. **Transferring of thoughts.** In this concluding section the author considers the various causes that lead the thoughts of men astray. (A), *First* what is recommended by any passion takes complete possession of our thoughts, and cannot be dislodged; the mind turns it over and over, without advancing in the knowledge even of that which thus engrosses it. Men are often ashamed afterwards of the absurd figure they make in society while under the influence of such a master-passion. Continuance of such a state of mind would certainly be called madness. (B) *Secondly* some subject may for the time arouse a growing enthusiasm, till one is unable to turn his mind to anything else; though when the fit is over, he may be ashamed he was so much excited about it. (C) *Thirdly*, some scraps of verse or something equally trivial, take complete possession of the mind for the time, giving it no rest. (D) A somewhat similar case occurred within the author's personal experience, of a variety of faces passing in a very long train before the mind's eye of a person lying awake, in the dark. It was due in that case to physical causes. (E) The remedy: when one is mastered by passion, it should either be allayed, or counterbalanced with another art to be acquired by study. When carried away by the current of our thoughts (not excited by passions,) the remedy is, not to indulge such trivial attentions of thought, but deliberately introduce more serious considerations. We shall have the energy to do this successfully, if we realise the value of the liberty of mind both in business and study, and understand what slavery is to have our minds engrossed by what we would hardly give a thought to, in our sober moments. As to the third kind of preoccupation, it is only when the mind is lazy or negligently employed, that such absurd trifles continually "chime in the memory." The remedy is to set the understanding vigorously to work.

FINIS.



